| I.   | POTENTIAL REFERENCES OF INTEREST    | 3   |
|------|-------------------------------------|-----|
| A.   | Dialog                              | 3   |
| В.   | Additional Resources Searched       | 3   |
| II.  | INVENTOR SEARCH RESULTS FROM DIALOG | 4   |
| III. | TEXT SEARCH RESULTS FROM DIALOG     | 9   |
| A.   | Full-Text Databases                 | 9   |
| IV.  | TEXT SEARCH RESULTS FROM DIALOG     | 24  |
| A.   | Abstract Databases                  | .24 |
| ٧.   | ADDITIONAL RESOURCES SEARCHED       | 52  |

# I. Potential References of Interest

A. Dialog

No relevant results.

# B. Additional Resources Searched

Financial Times FullText (via ProQuest): No relevant results.

Internet & Personal Computing Abstracts (via EBSCOhost): No relevant results.

# II. Inventor Search Results from Dialog

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 11/3K/4 (Item 4 from file: 348) 01171686

## TERMINAL, CHARGING SYSTEM, AND DATA PROCESSING METHOD

TERMINAL, LADESYSTEM UND DATENVERARBEITUNGSVERFAHREN TERMINAL, SYSTEME DE TAXATION ET PROCEDE DE TRAITEMENT DE DONNEES

## Patent Assignee:

Sony Corporation (214028)
 7-35, Kitashinagawa 6-chome, Shinagawa-ku; Tokyo 141-0001 (JP)
 (Applicant designated States: all)

#### Inventor:

YODO, Fumitake Sony Corporation
 7-35, Kitashinagawa 6-chome Shinagawa-ku; Tokyo 141-0001; (JP)

## Legal Representative:

Ayers, Martyn Lewis Stanley (42851)
 J.A. KEMP & CO. 14 South Square Grav's Inn: London WC1R 5LX; (GB)

|             | Country | Number   | Kind | Date             |
|-------------|---------|----------|------|------------------|
| Patent      | EP      | 1071031  | A1   | 20010124 (Basic) |
|             | wo      | 0029996  |      | 20000525         |
| Application | EP      | 99972334 |      | 19991117         |
|             | WO      | 99JP6424 |      | 19991117         |
| Priorities  | JP      | 98327019 |      | 19981117         |

# Designated States:

DF: FR: GB

Specification; ...modifications will be described.

In the above-described example, the number of points PT in the point memory 45 is initially set at the specified initial value, and the number of points PT is restored to the initial value at steps S14 and S26. However, the initial value may be not only a fixed value but also may be set by the user. For....initial value so as to best avoid the insufficiency of points at steps S6 and S34. That is, in the case of the insufficient of points, the user must wait for the communication and accounting processing through communication with the distribution/accounting center 1, and some users want to avoid such a situation as much as possible. Therefore, if the.....user can be realized. In the case where the initial value can be thus changed, the CPU II needs to transmit the current number of points and the initial value in carrying out the accounting processing through communication with the distribution/accounting center 1, so that the distribution/accounting center 1 determines the number of points to be used.

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 27/3K/1 (Item 1 from file: 348) 011111485

# RECORDING/REPRODUCING APPARATUS, DATA REPRODUCING METHOD, AND DATA RECORDING / REPRODUCING METHOD

AUFZEICHNUNGS-/WIEDERGABEGERAT, VERFAHREN ZUR WIEDERGABE VON DATEN, UND VERFAHREN ZUR AUFZEICHNUNG/WIEDERGABE VON DATEN

APPAREIL D'ENREGISTREMENT / REPRODUCTION, PROCEDE DE REPRODUCTION DE DONNEES ET PROCEDE D'ENREGISTREMENT/REPRODUCTION DE DONNEES

## Patent Assignee:

Sony Corporation (214028)
 7-35, Kitashinagawa 6-chome, Shinagawa-ku; Tokyo 141-0001 (JP)
 (Applicant designated States: all)

#### Inventor:

- · YODO, Fumitake, Sony Corporation
  - 7-35, Kitashinagawa 6-chome, Shinagawa-ku; Tokyo 141-0001; (JP)
- · ARAMAKI, Junichi, Sony Corporation
- 7-35, Kitashinagawa 6-chome, Shinagawa-ku; Tokyo 141-0001; (JP)
- YODO, Fumitake, Sony Corporation...

. .

# Legal Representative:

Ayers, Martyn Lewis Stanley et al (42851)
 J.A. KEMP & CO. 14 South Square Gray's Inn; London WC1R 5LX; (GB)

|             | Country | Number   | Kind | Date     |         |
|-------------|---------|----------|------|----------|---------|
| Patent      | EP      | 1030301  | A1   | 20000823 | (Basic) |
|             | WO      | 9960569  |      | 19991125 |         |
| Application | EP      | 99921169 |      | 19990519 |         |
|             | WO      | 99JP2602 |      | 19990519 |         |
| Priorities  | JP      | 98136472 |      | 19980519 |         |

#### Designated States:

DE: FR: GB

Specification: ...the communication module 121 and transmits a transfer command for the selected music program to the portable terminal unit 104 (at step S26). At this point, the information vending unit 105 transmits charging information of the charging recording database 135 to the charging recording module 125 of the portable terminal unit 104. The music program data and...

Dialog eLink: Order File History 27/3K/2 (Item 1 from file: 349) DIALOG(R)File 349: PCT FULLTEXT (c) 2010 WIPO/Thomson. All rights reserved.

00566623

### TERMINAL, CHARGING SYSTEM, AND DATA PROCESSING METHOD TERMINAL, SYSTEME DE TAXATION ET PROCEDE DE TRAITEMENT DE DONNES

# Patent Applicant/Patent Assignee:

- SONY CORPORATION
- VODO Fumitake

#### Inventor(s):

- YODO Fumitake
- YODO Fumitake

|             | Country | Number    | Kind | Date     |
|-------------|---------|-----------|------|----------|
| Patent      | WO      | 200029996 | A1   | 20000525 |
| Application | WO      | 99JP6424  |      | 19991117 |
| Priorities  | JP      | 98327019  |      | 19981117 |

Designated States: (Protection type is "Patent" unless otherwise stated - for applications prior to 2004) CN, IN, KR, SG, US, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

## English Abstract:

...with a charging center, a charging system, and data processing center are disclosed. A point memory (45) of a recording/reproducing device (10) holds charging point information. An HDD (15) holds information sent from an external source. A CPU (11) updates the charging point information stored in the point memory (45) when the information sent is stored in the HDD (15), and updates the attributes of the information sent. Thus the disadvantage that it is necessary to communicate with a...

27/5/1 (Item 1 from file: 350) DIALOG(R)File 350: Derwent WPIX (c) 2010 Thomson Reuters. All rights reserved.

0010231586 Drawing available
WPI Acc no: 2000-542946/200049
XRPX Acc No: N2000-401639
Charging system with update of information
Patent Assigne: SONY CORP (SONY)
Inventor: FUMITAKE Y; YODO F

|                |          |                                | nily (18 patents, 25 co | , | *************************************** |                 | (m)       |
|----------------|----------|--------------------------------|-------------------------|---|---|-----------------|-----------|
|                | Kind     | Date                           | Application Number      |   | Date                                    | Update          | , minimum |
| WO 2000029996  | <u></u>  | Contraction of the Contraction | WO 1999JP6424           | A | 19991117                                |                 |           |
| JP 2000148861  | Α        |                                | JP 1998327019           | Α | 19981117                                | January Control | ·         |
| EP 1071031     | A1       | 20010124                       | EP 1999972334           | A | 19991117                                | 200107          | E         |
|                |          |                                | WO 1999JP6424           | A | 19991117                                |                 | ,         |
| CN 1293786     | Α        |                                | CN 1999804141           | Α | 19991117                                |                 |           |
|                | A        | ·····                          | KR 2000707605           | Α | 20000710                                | <u> </u>        | ,         |
| US 20010047317 | A1       | 20011129                       | US 2000600509           | A | 20000717                                | 200202          | E         |
|                |          |                                | US 2001923618           | Α | 20010807                                | ,               |           |
| US 20010047318 | A1       | 20011129                       | US 2000600509           | Α | 20000717                                | 200202          | Е         |
|                |          |                                | US 2001923702           | A | 20010807                                |                 |           |
| US 20030004841 | A1       | 20030102                       | US 2000600509           | Α | 20000717                                | 200305          | Е         |
|                |          |                                | US 2002236561           | Α | 20020906                                |                 |           |
|                | P3       | 20050617                       | WO 1999JP6424           | Α | 19991117                                | 200573          | E         |
|                |          |                                | IN 2000MN169            | A | 20000710                                |                 |           |
| CN 1645391     | Α        | 20050727                       | CN 1999804141           | A | 19991117                                | 200577          | Е         |
|                |          |                                | CN 200510007911         | Α | 19991117                                |                 |           |
| SG 119172      | A1       | 20060228                       | SG 2003307              | A | 19991117                                | 200622          | E         |
| IN 200400506   | P3       | 20050513                       | WO 1999JP6424           | Α | 19991117                                | 200629          | Е         |
|                |          |                                | IN 2002MN169            | A | 20020211                                |                 |           |
|                |          | Ì                              | IN 2004MN506            | A | 20040913                                |                 |           |
| US 20070005454 | A1       | 20070104                       | WO 1999JP6424           | Α | 19991117                                | 200703          | E         |
|                |          |                                | US 2000600509           | Α | 20000717                                |                 | ·         |
|                |          |                                | US 2002236561           | A | 20020906                                |                 |           |
|                |          |                                | US 2006481218           | A | 20060705                                |                 |           |
| US 7266530     | B2       | 20070904                       | US 2000600509           | A | 20000717                                | 200759          | E         |
|                |          |                                | US 2002236561           | A | 20020906                                |                 |           |
| KR 832139      | B1       | 20080527                       | WO 1999JP6424           | Α | 19991117                                | 200869          | E         |
|                |          |                                | KR 2000707605           | A | 20000710                                | greseres eserci | Acres of  |
| US 7493275     | B1       | 20090217                       | WO 1999JP6424           | A | 19991117                                | 200914          | E         |
|                |          |                                | US 2000600509           | A | 20000717                                |                 | biologic  |
| US 7523052     | B2       | 20090421                       | US 1999600509           | Α | 19991117                                | 200932          | E         |
|                |          | 20070121                       | WO 1999JP6424           | Α | 19991117                                | ,2005.22        |           |
|                | <b>}</b> |                                | US 2001923702           | A | 20010807                                |                 |           |
| IN 204475      | В        | 20070615                       | WO 1999JP6424           | A | 19991117                                | 200066          | F         |
| 1112077/3      |          | 20070013                       | IN 2000MN169            | A | 20000710                                | 200900          | E.        |
|                | <u> </u> |                                | IN 2000MN 169           | A | 20000710                                |                 |           |

Priority Applications (no., kind, date): JP 1998327019 A 19981117; WO 1999JP6424 A 19991117; JP 19996424 A 19991117

9

## Alerting Abstract WO A1

NOVELTY - Point memory (45) of recording/reproducing device (10) holds charging point information. HDD (15) holds information sent from external source. CPU (11) updates charging point information stored in point memory (45) when information sent is stored in HDD (15), and updates attributes of information sent. Thus it is not necessary to communicate with delivery/charging center each time information is sent to recording/reproducing device.

DESCRIPTION - INDEPENDENT CLAIMS are included for terminal to communicate with charging center and data processing method.

USE - Charging system.

ADVANTAGE - Not necessary to communicate with delivery/charging center each time information is sent to recording/reproducing device.

DESCRIPTION OF DRAWINGS - Block diagram of charging system.

- 10 Recording/reproducing device
- 11 CPU
- 15 HDD
- 45 Point memory

Title Terms /Index Terms/Additional Words: CHARGE: SYSTEM: UPDATE: INFORMATION

Dialog eLink: Order File History 27/5/2 (Item 1 from file: 347) DIALOG(R)File 347: JAPIO (c) 2010 JPO & JAPIO. All rights reserved.

06563118 \*\*Image available\*\*

## CHARGING SYSTEM AND TERMINAL DEVICE

Pub. No.: 2000-148861 [JP 2000148861 A] Published: May 30, 2000 (20000530) Inventor: YODO FUMITAKE

Applicant: SONY CORP Application No.: 10-327019 [JP 98327019]

Filed: November 17, 1998 (19981117)

International Class: G06F-017/60; G10K-015/04; G11B-020/10

#### ABSTRACT

PROBLEM TO BE SOLVED: To build an appropriate simple charging system for information to be distributed with charged.

SOLUTION: On terminal equipment side, a point value is held as charging point information and consumed correspondingly to the input (purchase) of pay information. Actual charging processing is made to be executed at a charging center by periodically transmitting the charging point information to the charging center at certain points of time. In a word, the charging center executes the charging processing in accordance with the information purchasing fee of each user which can be discriminated from the charging point information.

9

COPYRIGHT: (C)2000 IPO

# III. Text Search Results from Dialog

### A. Full-Text Databases

Items

Description

```
File 20:Dialog Global Reporter 1997-2010/Oct 27
         (c) 2010 Dialog
File 15:ABI/Inform(R) 1971-2010/Oct 26
         (c) 2010 ProOuest Info&Learning
File 610: Business Wire 1999-2010/Oct 27
         (c) 2010 Business Wire.
File 810:Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File 613:PR Newswire 1999-2010/Oct 27
         (c) 2010 PR Newswire Association Inc
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 634:San Jose Mercury Jun 1985-2010/Oct 26
         (c) 2010 San Jose Mercury News
File 624:McGraw-Hill Publications 1985-2010/Oct 27
         (c) 2010 McGraw-Hill Co. Inc
File
      9:Business & Industry(R) Jul/1994-2010/Oct 26
         (c) 2010 Gale/Cengage
File 275:Gale Group Computer DB(TM) 1983-2010/Sep 14
         (c) 2010 Gale/Cengage
File 621:Gale Group New Prod.Annou.(R) 1985-2010/Sep 03
         (c) 2010 Gale/Cengage
File 636:Gale Group Newsletter DB(TM) 1987-2010/Oct 26
         (c) 2010 Gale/Cengage
File 16:Gale Group PROMT(R) 1990-2010/Oct 25
         (c) 2010 Gale/Cengage
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 148: Gale Group Trade & Industry DB 1976-2010/Oct 26
         (c) 2010 Gale/Cengage
File 348: EUROPEAN PATENTS 1978-201042
         (c) 2010 European Patent Office
File 349:PCT FULLTEXT 1979-2010/UB=20101021|UT=20101014
         (c) 2010 WIPO/Thomson
```

- 51 908522 (TRANSMIT OR TRANSMISSION? ? OR SEND??? OR TRANSFER? OR WIRE? ? OR WIRING OR SELD???? OR COMMUNICATE OR RECEIV???) (7N) (POINT OR POINTS OR MILES OR MILEAGE OR REWARD OR REWARDS OR TOKEN OR TOKENS)
- S2 80861 S1 (7M) (ACCOUNTING OR FINANCE OR BANK? ? OR BANC? ? OR ACH OR CLEARINGHOUSE? ? OR CLEARING()HOUSE? ? OR CENTER? ? OR CENTRE? ? OR DEPARTMENT? ? OR DIVISION? ? OR OFFICE? ? OR INSTITUTION? ? OR COMPANY OR COMPANIES OR CENTRAL)
- S3 8393948 (CARRY??? OR DEDUCT??? OR SUBTRACT??? OR RECONCIL? OR BALANC??? OR REBALANC??? OR UPDAT??? OR BECALCULAT??? OR DEBIT??? OR DECREAS??? OR REDUC??? OR ADJUST??? OR ADJUSTMENT OR MODIFY??? OR MODIFIE? ? OR CHARG???) (7N) (BALANCE? ? OR AMOUNT? ? OR POINT? ? OR MILEAGE OR REWARD? ? OR TOKEN? ? OR ACCOUNT??)

- S4 3830089 (INITIAL?? OR FIRST OR ORIGINAL?? OR BEGINNING OR BEGAN OR START???
  OR SAME OR EARLIE?? OR OUTSET) (3N) (VALUE? ? OR WORTH? ? OR AMOUNT OR POINT? ? OR
  DOLLAR? ? OR MONEY OR DENOMINATION OR CREDIT? ? OR NUMBER? ?)
- S5 41010 S4 (7N) (RESTOR??? OR RESTORATION OR RETURN?? OR REINSTAT??? OR RESET? ? OR RESETTING OR (PUT OR PUTS OR GIV???)()BACK)
- S6 2225393 (AFFINITY OR CO()BRANDED OR COBRANDED OR LOYALTY OR BONUS OR AWARD? OR INCENTIVE OR REWARD? ? OR GIFT OR MILES OR MILEAGE OR FECQUENT()FLYED OR PREFERRED OR POINTS OR DISCOUNT OR ADVANTAGE OR CLUB? ? OR CHARGE OR CREDIT OR DEBIT OR BANK OR CHECK OR CHEQUE OR PREFAID OR PRE()PAID OR FINANCIAL OR SWART OR CO R INTEGRATED()CIRCUIT OR MEMBER? ? OR AIRLINE? ?) (3N) (CARD? ? OR PROGRAM? ? OR PLANY? OR SYSTEM? OR CLUB? ? OR SCHEME? ? OR ACCOUNT? ? OR POINT? ? OR MILE? ?)

```
$7
             AU=(YODO, F? OR YODO F? OR YODO (1N) (F OR FUMITAKE))
S8
       14808
             S2 (S) S3
             S8 (S) S5
S9
         24
S10
          20 S9 FROM 348,349
S11
         8 S10 NOT AY>1999
S12
         374 S8 (S) S4
S13
        168 S12 FROM 348,349
S14
        160 S13 NOT S11
S15
         52 S14 NOT AY>1999
         31
             S15 (S) S6
$16
S17
         28 S16 NOT ELECTRONIC()RIGHTS() PROTECTION
S18
         28 S17 NOT SECURE() TRANSACTION() MANAGEMENT
S19
        378 S9 OR S12
S20
        172 S19 FROM 348,349
S21
         206 S19 NOT S20
          8 S21 NOT PY>1998
S22
$23
          7 RD (unique items)
          9 S21 NOT PY>1999
S24
         2 S24 NOT S23
S25
S26
         3 S7 AND S1
$27
         2 S26 NOT S11
```

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 18/3K/1 (Item 1 from file: 348) 01796015

Mobile electronic commerce system Mobiles elektronisches Handelssystem Systeme de commerce electronique mobile

# Patent Assignee:

 MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD (216884) 1006, Oaza-Kadoma; Kadoma-shi, Osaka 571-0000 (JP) (Applicant designated States: all)

9

#### Inventor:

Takayama, Hisashi
 5-6-12-104 Matsubara: Setagaya-ku Tokyo 156-0043; (JP)

## Legal Representative:

Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721)
 Maximilianstrasse 58; 80538 Munchen; (DE)

|             | Country | Number     | Kind | Date             |
|-------------|---------|------------|------|------------------|
| Patent      | EP      | 1467300    | A1   | 20041013 (Basic) |
| Application | EP      | 2004015278 |      | 19980813         |
| Priorities  | JP      | 97230564   |      | 19970813         |

## Designated States:

DE: FR: GB

Related Parent Numbers: Patent (Application):EP 950968 (EP 98937807)

Specification: ...process whereby, in the service providing system, the user registers for his or her own use a purchased telephone card or one received as a gift. The telephone card setup process is a process whereby the service provider determines the process to be employed for the electronic telephone card at the electronic telephone card.....key switches 308, the user selects a telephone card issuer, enters the order code for a desired telephone card and a desired number of telephone cards, designates a credit card to be used for payment and the number of payments, and enters the code number. The user then depresses the execution switch 311 (telephone card.....in the subscriber information server 1001, in the member store information server 1002 and in the transaction information server 1003, reforms the clearing of the credit card, and transmits to the service providing system a clearing completion notification 6305, which is a message stating that the clearing process has been completed.

Upon...be given later for the contents of the messages that are exchanged by the devices during the above electronic telephone card service processing.

The electronic credit card service will now be described.

The electronic **credit card** service includes two settlement processes: a network credit settlement process, for a credit clearance for the price of a product for the purchase of a....settlement processing will now be described.

In Fig. 84 is shown the real credit settlement processing.

First, the user notifies the merchant that an electronic **credit card** will be employed for the payment (instruct settlement to be made with an electronic **credit card**: 8400).

The merchant depresses the **credit card** settlement switch 513 (the function switch F3 for the merchant terminal 103) (depress the **credit card** settlement switch: 8401), and permits the user to start the payment operation (instruct the start of the payment operation: 8403). At this time, the total.....the LCD of the merchant terminal 102 or 103 (display "waiting for the payment operation": 8402).

The user sets the mobile user terminal to the **credit card** mode, employs the function switch (F1 or F2) to display a payment card to be used for the payment, and enters the amount to be... ...merchant terminal 103) (payment operation 8404), the user depresses the execution switch 311. The mobile user terminal generates a payment offer 8405 that includes the **credit card** type, the amount to be paid and the number of payments that are entered by the user, and that is a message offering to pay.....payment offer 8405 is transmitted to the merchant terminal via infrared communication.

Upon receiving the payment offer 8405, the merchant terminal examines the type of **credit card** and the amount of the payment, and via infrared communication, transmits to the mobile user terminal a payment offer response 8406, which is a response. ... 8409 from the merchant terminal and the payment request 8410 from the mobile user terminal 100, and compares the two. In addition, the service providing **system** 110 examines the **credit** state of the user, and generates and transmits, to the merchant terminal, an authorization response 8411, which is a response message for the authorization request. ... process (display the recein): 84220.

A detailed explanation will be given later for the messages that are exchanged by the devices during the above electronic **credit card** service process.

The internal structure of the mobile user terminal 100 will now be described.

Fig. 15 is a block diagram illustrating the arrangement of ... exists when a frame interruption has occurred. In this bit field, a 1 is set when the amount in the frame counter 1600 equals the **amount** held in the **start** frame register 1601.

9

Bit 28 represents the generation of a call arrival interrupt. When the bit value is 1, it indicates that a digital wireless.....process. When the bit value is 1, it indicates the generation of the update interrupt. In this bit field, a 1 is set when the amount in the clock counter 1602 matches the amount in the update time register 1603.

Bit 25 represents the generation of a battery interrupt requesting a...

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 18/3K/2 (Item 2 from file: 348) 01150452

## System and method for loading a stored-value card.

System und Verfahren zum Laden einer Speicherwertkarte

Systeme et methode de rechargement d'une carte a valeur stockee

# Patent Assignee:

 VISA INTERNATIONAL SERVICE ASSOCIATION (560813) 900 Metro Center Boulevard; Foster City, CA 94404 (US) (Proprietor designated states: all)

### Inventor:

- · Davis, Virgil M.
  - 1121 Runnymead Drive; Los Altos, CA 94024; (US)
- · Cutino, Suzanne C.
- 431 Arkansas Street; San Francisco, CA 94107; (US)
- Berg, Michael J.
- 2644 Belmont Canvon Rd; Belmont, CA 94002; (US)
- · Conklin, Fredrick Sidney
  - 26 Alida Court; Oakland, CA 94602; (US)

Pringle, Steven John
 5174 Miles Avenue; Oakland, CA 94618; (US)

# Legal Representative:

Finnie, Peter John et al (79521)
 Gill Jennings & Every LLP Broadgate House 7 Eldon Street; London EC2M 7LH; (GB)

|             | Country | Number     | Kind | Date             |
|-------------|---------|------------|------|------------------|
| Patent      | EP      | 1003139    | A2   | 20000524 (Basic) |
| Patent      | EP      | 1003139    | A3   | 20011017         |
| Patent      | EP      | 1003139    | B1   | 20080716         |
| Application | EP      | 2000200558 |      | 19980430         |
| Priorities  | US      | 45883      | P    | 19970430         |
|             | US      | 951614     |      | 19971016         |

### Designated States:

AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR: IE: IT: LI: LII: MC: NL: PT: SE

# Extended Designated States:

AL; LT; LV; MK; RO; SI

Related Parent Numbers: Patent (Application):EP 1023705 (EP 98920079)

Specification: ...To determine the load value, the bank server requests that the user enter the amount to load to the card. Assuming that the user's account is adequate, the bank server requests the user's account be debited in step 875 by the load value. Advantageously, the debit request from the bank server can use the existing ATM and accounting systems of the bank to debit the user's account. From the bank's point of view, value is being transferred from the user's account much in the same way that value would be transferred to a user in the form of cash at an ATM. In this situation, though, the value is not being dispensed as...

Specification: ...To determine the load value, the bank server requests that the user enter the amount to load to the card. Assuming that the user's account is adequate, the bank server requests the user's account be debited in step 875 by the load value. Advantageously, the debit request from the bank server can use the existing ATM and accounting systems of the bank to debit the user's account. From the bank's point of view, value is being transferred from the user's account much in the same way that value would be transferred to a user in the form of cash at an ATM. In this situation, though, the value is not being disnersed as...

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 18/3K/3 (Item 3 from file: 348) 01008315

INTERNET PAYMENT AND LOADING SYSTEM USING SMART CARD CHIPKARTEN VERWENDENDES SYSTEM ZUM BEZAHLEN UND LADEN IM INTERNET SYSTEME DE PAIEMENT ET DE CHARGEMENT PAR INTERNET A L'AIDE D'UNE CARTE A PUCE

### Patent Assignee:

 VISA INTERNATIONAL SERVICE ASSOCIATION (560813) 900 Metro Center Boulevard; Foster City, CA 94404 (US) (Proprietor designated states; all)

#### Inventor

DAVIS, Virgil, M.

1121 Runnymead Drive: Los Altos, CA 94024; (US)

· CUTINO, Suzanne, C.

431 Arkansas Street; San Francisco, CA 94107; (US)

BERG, Michael, J.

2644 Belmont Canyon Road; Belmont, CA 940002; (US)

· CONKLIN, Fredrick, Sidney

26 Alida Court; Oakland, CA 94602; (US)

· PRINGLE, Steven, John

5174 Miles Avenue; Oakland, CA 94618; (US)

## Legal Representative:

Finnie, Peter John et al (79521)
 Gill Jennings & Every, Broadgate House, 7 Eldon Street; London EC2M 7LH; (GB)

|             | Country | Number     | Kind | Date            |
|-------------|---------|------------|------|-----------------|
| Patent      | EP      | 1023705    | A1   | 20000802 (Basic |
| Patent      | EP      | 1023705    | B1   | 20050406        |
|             | WO      | 1998049658 |      | 19981105        |
| Application | EP      | 98920079   |      | 19980430        |
| ,           | WO      | 98US8806   |      | 19980430        |
| Priorities  | US      | 45883      | P    | 19970430        |
|             | US      | 951614     | 1    | 19971016        |

### Designated States:

AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR: IE: IT: LI: LU: MC: NL: PT: SE

Related Divisions: Patent (Application):EP 1003139 (EP 2000200558)

Specification: ...To determine the load value, the bank server requests that the user enter the amount to load to the card. Assuming that the user's account is adequate, the bank server requests the user's account be debited in step 875 by the load value. Advantageously, the debit request from the bank server can use the existing ATM and accounting systems of the bank to debit the user's account. From the bank's point of view, value is being transferred from the user's account much in the same way that value would be transferred to a user in the form of cash at an ATM. In this situation, though, the value is not being dispensed as...

DIALOG(R)File 348: EUROPEAN PATENTS

(c) 2010 European Patent Office. All rights reserved.

18/3K/14 (Item 14 from file: 348) 00298596

## On-line wagering system with programmable game entry cards.

On-line-Wettsystem mit programmierbaren Spielzugangskarten.

Systeme de pari en temps reel avec cartes programmables d'entree de données de jeu.

#### Patent Assignee:

GTECH Corporation (1013710)

101 Dyer Street; Providence Rhode Island 02903 (US)
(applicant designated states: AT:BE:CH:DE:ES:FR:GB:GR:IT:LI:LU:NL:SE)

### Inventor:

Bergeron, Daniel R.

31 Appleton Avenue; Pawtucket, Rhode Island 02860; (US)

#### Legal Representative:

Patentanwalte Ruff, Beier, Schondorf und Mutschele (100161)
 Neckarstrasse 50; W-7000 Stuttgart 1; (DE)

|             | Country | Number   | Kind | Date             |
|-------------|---------|----------|------|------------------|
| Patent      | EP      | 307925   | A2   | 19890322 (Basic) |
| Patent      | EP      | 307925   | A3   | 19891115         |
| Patent      | EP      | 307925   | В1   | 19930127         |
| Application | EP      | 88115179 |      | 19880916         |
| Priorities  | US      | 98544    |      | 19870918         |

## Designated States:

AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;

LU: NL: SE

Specification: ...particularly in Europe, all users are required to write their complete names and addresses on every play entry. For example, should a player have a set pattern of numbers played frequently in a lottery game, or a pattern of games or contestants selected in any type of wager entry as a matter....be conducted entirely electronically.

Fig. 9 includes flow charts demonstrating the parallel operation of the central on-line wagering system and distributed agent terminals for smart cards 30 and written mark sense slips (not shown). The processor on the card is simply programmed to determine whether it is being legally accessed, for.....being inquired to transmit data or to receive instructions, whereupon the card conducts its internal memory read out or update. The number of active tokens is then corrected, for example by cancelling a token in the event of a play, which fact is verified by reading out the token values, whereupon activity on the card is suspended. Should the card be used to read out information, for example the habitual playing numbers or playing patterns of a user, the card can be programmed to operate in a loop, reading out one play at a time until either the list of plays or the sum of tokens is exhausted.

Agent terminal 60 can be operable, for example, by initially determining whether a mark sense card or a smart card has been loaded. Should a mark sense card be loaded, the agent terminal operates conventionally by reading the data, recording the customer's payment, communicating central wagering system 80 and receiving a validation code, whereupon a receipt is printed. In the event the agent terminal detects that **smart card** has been loaded in the port, the agent terminal reads the L.D., which can be as little as a unique sequence number or as...

DIALOG(R)File 348: EUROPEAN PATENTS (c) 2010 European Patent Office. All rights reserved. 18/3K/16 (Item 16 from file: 348) 00256016

#### POS Terminal device.

Verkaufsstellenterminal. Terminal pour point de vente.

#### Patent Assignee:

OMRON TATEISI ELECTRONICS CO. (284761)
 10, Tsuchido-cho Hanazono Ukyo-ku; Kyoto-shi Kyoto-fu (JP)
 (applicant designated states: AT-BE-CH:DE:ES:FR:GB:GR:TT.LI.LU:NL:SE)

#### Inventor:

- · Shinjo, Shoji Omron Tateisi Electronics Co
  - Patent Center 20, Igadera Shimo-Kaiinji; Nagaokakyo-City Kyoto 617; (JP)
- Nakashima, Toyoshiro Omron Tateisi Electronics Co
  Patent Center 20, Igadera Shimo-Kaiinji; Nagaokakyo-City Kyoto 617; (JP)
- Nakano, Tetsuvuki Omron Tateisi Electronics Co.
- Patent Center 20, Igadera Shimo-Kaiinji; Nagaokakyo-City Kyoto 617; (JP)

## Legal Representative:

WILHELMS, KILIAN & PARTNER Patentanwalte (100601)
 Eduard-Schmid-Strasse 2; W-8000 Munchen 90; (DE)

|   | Country | Number   | Kind | Date             |
|---|---------|----------|------|------------------|
| Patent                                  | EP      | 253240   | A1   | 19880120 (Basic) |
| Patent                                  | EP      | 253240   | B1   | 19920325         |
| Application                             | EP      | 87109623 |      | 19870703         |
| Priorities                              | JP      | 86157545 |      | 19860703         |
| , | JР      | 875281   |      | 19870112         |
|   | JP      | 877240   |      | 19870114         |

## Designated States:

AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LII: NI: SE

Specification: ...that new accumulated value is stored on service card 13 as the total service points.

Now, referring to Fig. 4, a specific operation of the first embodiment is described in detail.

In step 1, an operator enters purchasing data into the terminal, such as commodity prices, item numbers, and department codes. Upon completing these operations, the operator presses a transaction key (not shown). The, CPU 1 causes a sales total to be registered and displayed in step 2. In step 3, the CPU 1 inquires if service card 13 has been set in card reader/writer 6. If it is the first visit by the customer to the store, he is asked whether he needs a service card. In response to his positive answer, a new service card 13 is issued for him and inserted in card reader/writer 6.

If the customer has no service card 13 and does not want a new one, there will be no service card in card reader/ writer 6 and this is detected in step S3. A conventional detector (not shown) is used for detecting the presence of service card 13 in card reader/writer 6. If no card is present, then conventional transaction processing is conducted in step \$15 and the transaction is completed.

If a service card 13 has been set in card reader/writer 6, this... ...points to the total service points read from card 13 in step 6. In step 7, the CPU 1 determines whether the new total service points has reached a predetermined value for giving a discount. If ves, the sales amount total just registered is discounted by the amount determined by the value of the service points and the discounted amount is displayed...

18/3K/19 (Item 2 from file: 349) DIALOG(R)File 349: PCT FULLTEXT (c) 2010 WIPO/Thomson. All rights reserved.

00526313

#### SYSTEM AND METHOD FOR INTRADAY NETTING PAYMENT FINALITY

SYSTEME ET PROCEDE PERMETTANT DE FINALISER LE PAIEMENT D'UNE COMPENSATION INTERNE DANS LA JOURNEE

# Patent Applicant/Patent Assignee:

THE CLEARING HOUSE SERVICE COMPANY I. I. C.

### Inventor(s):

- COTTON Robert M
- THOMAS George F
- PAWELCZYK Joseph S

|             | Country | Number   | Kind | Date     |
|-------------|---------|----------|------|----------|
| Patent      | WO      | 9957665  | A1   | 19991111 |
| Application | WO      | 99US9698 |      | 19990505 |
| Priorities  | US      | 9884223  |      | 19980505 |

Designated States: (Protection type is "Patent" unless otherwise stated - for applications prior to 2004) CA, JP, MX, AT, BE, CH, CY, DE, DK, ES,

FL FR, GB, GR, IE, IT, LU, MC, NL, PT,

SE

## Detailed Description:

...between a real-time, cross settlement system operated by the central bank and a privately operated multilateral netting system.

### 1. FEDWIRE

From the point of view of a bank that sends a payment order to or receives a payment order from a Federal Reserve Bank, Fedwire funds transfers are final when made. The sender's Federal Reserve Bank debits the sender's account as of the time the Federal Reserve Bank acts on the payment order. The receiving bank receives final payment when its Federal Reserve Bank credits its account or sends an advice of credit, whichever is earlier. At this point, the beneficiary has been paid, and the originator's obligation to pay - 14 the beneficiary is discharged. The receiving bank has good funds in its reserve or clearing account that can be withdrawn and that counts towards fulfillment of the bank's required reserve balance.

Viewed from the inside, however, Fedwire is a net settlement system involving 12 settling banks, each of which is a separate corporation with its own...

18/3K/21 (Item 4 from file: 349) DIALOG(R)File 349: PCT FULLTEXT (c) 2010 WIPO/Thomson, All rights reserved.

00459194

# INTERNET PAYMENT AND LOADING SYSTEM USING SMART CARD

SYSTEME DE PAIEMENT ET DE CHARGEMENT PAR INTERNET A L'AIDE D'UNE CARTE A PUCE

# Patent Applicant/Patent Assignee:

- VISA INTERNATIONAL SERVICE ASSOCIATION
- DAVIS Virgil M
- · CUTINO Suzanne C
- BERG Michael J
- CONKLIN Fredrick Sidney
- PRINGLE Steven John

#### Inventor(s):

- DAVIS Virgil M
- CUTINO Suzanne C.
- BERG Michael J
- CONKLIN Fredrick Sidney
- PRINGLE Steven John

|             | Country | Number   | Kind | Date     |
|-------------|---------|----------|------|----------|
| Patent      | WO      | 9849658  | A1   | 19981105 |
| Application | WO      | 98US8806 |      | 19980430 |
| Priorities  | US      | 9745883  |      | 19970430 |
|             | US      | 97951614 |      | 19971016 |

Designated States: (Protection type is "Patent" unless otherwise stated - for applications prior to 2004)

AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY,

CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI,

GB, GE, GH, GM, GW, HU, ID, IL, IS, JP,

KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,

TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FK, GB, GR, EI, TI, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

## **Detailed Description:**

...To determine the load value, the bank server requests that the user enter the amount to load to the card. Assuming that the user's account is adequate, the bank server requests the user's account be debited in step 875 by the oda value. Advantageously, the debit request from the bank server can use the existing ATM and accounting systems of the bank to debit the user's account. From the bank's point of view, value is being transferred from the user's account much in the same way that value would be transferred to a user in the form of cash at an ATM. In this situation, though, the value is not being dispensed as...

23/3,K/1 (Item 1 from file: 15)
DIAL.OG(R)File 15: ABI/Inform(R)
(c) 2010 ProQuest Info&Learning. All rights reserved.

01739597 03-90587

## Windows NT: The perfect call center companion

#### Anonymous

Sales & Marketing Management v150n13 pp: 14A-16A

ISSN: 0163-7517 Journal Code: SAL

Word Count: 2500

#### Text:

...costs and boost profits. But only the truly wise have caught on to the new trend of putting the customer on top by offering call center services that streamline communications and offer multiple points of access from any location. New NT-based call center solutions balance the call volume automatically, manage loads, and link data to all points of contact throughout the organization. immediate need, it didn't advance the sales...

...speed Internet-access business world, the service representative may be the only employee who ever comes face-to-face with the customer Clearly, giving all **points** of contact the **same** level of information will, in the long run, benefit your business more than restricting that information to just a chosen few. Naturally, this broad-based...

23/3,K/2 (Item 2 from file: 15) DIALOG(R)File 15: ABI/Inform(R) (c) 2010 ProQuest Info&Learning. All rights reserved.

00859643 95-09035 Vendor financing business bypasses banks Simonson, Donald United States Banker v104n5 pp: 86-89 May 1994 ISSN: 0148-8848 Journal Code: USI Word Count: 1211

Text:

...credit loans. Then, when the subs switched to the heavy issuance of commercial paper, they were required to back the paper with bank lines of credit. Beginning in the early 1980s, the subs' financing techniques took another twist. With the help of their banks, they set up financing conduits which would acquire the companies' receivables and finance them by issuing commercial paper backed by bank lines. Now, with the introduction of securitization, bank participation often becomes unnecessarv.

Vendor finance subs receive two powerful rewards for developing their securitization skills: lower costs and diversification of funding sources. First, securitization helps to solve the dilemma of increasing costs for conduit financing ...

23/3.K/3 (Item 1 from file: 813) DIALOG(R)File 813: PR Newswire (c) 1999 PR Newswire Association Inc. All rights reserved.

CL028

SCHULT HOMES REPORTS RECORD THIRD QUARTER SALES; PLANT EXPANSIONS LEAD TO LOWER NET EARNINGS

Date: April 27, 1995 16:47 EDT Word Count: 1.508

Correction:

0813453

...declined to \$3.6 million, or 10.6 percent of total capital, from \$7.0 million, or 21.2 percent of total capital, at the same point a year earlier. Looking forward, Wells said the company has taken steps

both to resolve the lingering startup problems and to ensure Schult Homes has the ability to continue to grow. "Top management has...

23/3,K/4 (Item 1 from file: 275) DIALOG(R)File 275; Gale Group Computer DB(TM) (c) 2010 Gale/Cengage. All rights reserved.

01607977 Supplier Number: 14031563 (Use Format 7 Or 9 For FULL TEXT) An end to the tech support nightmare, (includes related article on modem tech support)

Bredin, Alice Computer Shopper, v13, n8, p618(2) August, 1993

ISSN: 0886-0556

Language: ENGLISH Record Type: FULLTEXT: ABSTRACT

Word Count: 1657 Line Count: 00124

...over a customer's computer -- it's like we're standing right there," savs Bill Badger, director of sales and marketing at Expotech Computers.

Expotech began offering Central Point Commute, the

communications product his company supplies with all its

computers, in July 1992. "We wanted to find a way of reducing the amount of time spent on the phone. Now we can fix a problem in five minutes when it used to take 40 minutes to explain to ...

23/3.K/5 (Item 1 from file: 148)

DIALOG(R)File 148: Gale Group Trade & Industry DB

(c) 2010 Gale/Cengage. All rights reserved.

06210579 Supplier Number: 13691666 (USE FORMAT 7 OR 9 FOR FULL TEXT) Investing in safety, (driving and delivery safety programs)(includes related article) (Distribution)

Reiter Jeff

Dairy Foods, v93, n11, p67(3)

Oct , 1992 ISSN: 0888-0050

Language: ENGLISH

Record Type: FULLTEXT; ABSTRACT

Word Count: 1563 Line Count: 00122

...ago, lets drivers choose prizes from a catalog after a full year of safe driving. New drivers start with five points and earn one additional

point for each accident-free year; points are deducted

for accidents. Drivers also receive company pins indicating

their number of safe-driving years, and savings bonds for reaching certain safe-driving milestones (\$100 for five years, \$500 for 15 years...

23/3.K/6 (Item 2 from file: 148)

DIALOG(R)File 148: Gale Group Trade & Industry DB

(c) 2010 Gale/Cengage. All rights reserved.

06123670 Supplier Number: 12533526 (USE FORMAT 7 OR 9 FOR FULL TEXT) Agrexco turnaround. (Agrexco Agricultural Export Company Ltd.) (Feature Articles)

Israel Business Today, v6, n291, p16(1)

August 21, 1992

Language: ENGLISH

Record Type: FULLTEXT: ABSTRACT Word Count: 807 Line Count: 00064

... Agriculture employee); featherbedding was reduced, and a point-to-point communications net connected the main office in Tel Aviv to London, saving half a niillion dollars the first year. Most important of

all, Zimhi explains, was the decision to focus on specific areas of activity: which crops to develop and actively promote, which ...

23/3,K/7 (Item 3 from file: 148) DIALOG(R)File 148: Gale Group Trade & Industry DB (c) 2010 Gale/Cengage. All rights reserved.

02323311 Supplier Number: 03667479 (USE FORMAT 7 OR 9 FOR FULL TEXT ) Promo transports customers - gives them flight credit. (Kotok & Heims Corp.)

Institutional Distribution, v21, p93(1) March 1985

ISSN: 0020-3572 Language: ENGLISH Record Type: FULLTEXT

Word Count: 587 Line Count: 00045

...says Kotok. While reaction from customers to the idea was good, sign-ups through July moved at a slower pace than anticipated.

But at that point, the company began

sending the monthly updates out to customers. The DSRs followed that up by giving out free drink vouchers to their key accounts that could be used on USAir flights...

25/3.K/1 (Item 1 from file: 15)

DIALOG(R)File 15: ABI/Inform(R)

(c) 2010 ProQuest Info&Learning. All rights reserved.

01756599 04-07590

Medicare reform: Who pays and who benefits?

McClellan, Mark; Skinner, Jonathan Health Affairs v18n1 pp: 48-62

Jan/Feb 1999

ISSN: 0278-2715 Journal Code: HAF

Word Count: 5967

Text:

...and who benefits from a government policy or program, with particular emphasis on differences across income groups and generations. As we argue below, a careful **accounting** of the enormous financial

transfers in Medicare provides a starting point for

assessing whether groups are better or worse off under reform. Thus, reforms should be judged not only on whether they **balance** the Medicare trust funds or improve efficiency or access, but also on their equity implications—how they influence the well—being of various groups of

25/3,K/2 (Item 1 from file: 148) DIALOG(R)File 148: Gale Group Trade & Industry DB (c) 2010 Gale/Cengage. All rights reserved.

0781602 Supplier Number: 16868068 (USE FORMAT 7 OR 9 FOR FULL TEXT )
SCHULT HOMES REPORTS RECORD THIRD QUARTER SALES; PLANT EXPANSIONS LEAD TO LOWER
NET FARNINGS

PR Newswire , p427CL028 April 27 , 1995 Language: ENGLISH Record Type: FULLTEXT

Word Count: 1433 Line Count: 00149

...declined to \$3.6 million, or 10.6 percent of total capital, from \$7.0 million, or 21.2 percent of total capital, at the **same point** a year **earlier**.

Looking forward, Wells said the company has taken steps both to resolve the lingering startup problems and to ensure Schult Homes has the ability to continue to grow. "Top management has...

# IV. Text Search Results from Dialog

# A. Abstract Databases

- File 35:Dissertation Abs Online 1861-2010/Sep (c) 2010 ProQuest Info&Learning File 474:New York Times Abs 1969-2010/Oct 27 (c) 2010 The New York Times File 475: Wall Street Journal Abs 1973-2010/Oct 27 (c) 2010 The New York Times File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13 (c) 2002 Gale/Cengage File 65:Inside Conferences 1993-2010/Oct 27 (c) 2010 BLDSC all rts. reserv. File 99:Wilson Appl. Sci & Tech Abs 1983-2010/Aug (c) 2010 The HW Wilson Co. 2:INSPEC 1898-2010/Oct W3 File (c) 2010 The IET File 256:TecTrends 1982-2010/Oct W2
- (c) 2010 Info.Sources Inc. All rights res.
  File 350:Derwent WPIX 1963-2010/UD=201068
  (c) 2010 Thomson Reuters
  File 347:JAPIO Dec 1976-2010/Upw/Udgeted 100924)
- File 347:JAPIO Dec 1976-2010/Jun(Updated 100924)
  (c) 2010 JPO & JAPIO
- Set Items Description
- S1 203503 (TRANSMIT? OR TRANSMISSION? ? OR SEND??? OR TRANSER? OR WIRE? ? OR WIRING OR RELAY??? OR FORWARD??? OR SENT OR SEND??? OR COMMUNICAT? OR RECEIV???)
  (7N) (POINT OR POINTS OR MILES OR MILEAGE OR REWARD OR REWARDS OR TOKEN OR TOKENS)
- S2 8753 S1 (7M) (ACCOUNTING OR FINANCE OR BANK? ? OR BANC? ? OR ACH OR CLEARINGHOUSE? ? OR CLEARING()HOUSE? ? OR CENTER? ? OR CENTRE? ? OR DEPARTMENT? ? OR DIVISION? ? OR OFFICE? ? OR INSTITUTION? ? OR COMPANY OR COMPANIES OR CENTRAL)
- S3 1180266 (CARRY??? OR DEDUCT??? OR SUBTRACT??? OR RECONCIL? OR BALANC??? OR REBALANC??? OR UPDAT??? OR RECALCULAT??? OR DEBIT??? OR DECREAS??? OR REDUC??? OR ADJUST??? OR ADJUSTMENT OR MODIFY??? OR MODIFIE? ? OR CHARG???) (7N) (BALANCE? ? OR AMOUNT? ? OR POINT? ? OR MILEAGE OR REWARD? ? OR TOKEN? ? OR ACCOUNT??)
- S4 653796 (INITIAL?? OR FIRST OR ORIGINAL?? OR BEGINNING OR BEGAN OR START??? OR SAME OR EARLIE?? OR OUTSET) (3N) (VALUE? ? OR WORTH? ? OR AMOUNT OR POINT? ? OR DOLLAR? ? OR MONEY OR DEMOMINATION OR CREDIT? ? OR NUMBER? ?)
- S5 9622 S4 (7N) (RESTOR??? OR RESTORATION OR RETURN?? OR REINSTAT??? OR RESET? ? OR RESETTING OR (PUT OR PUTS OR GIV???)()BACK)
- S6 1741065 (AFFINITY OR CO()BRANDED OR COBRANDED OR LOYALTY OR BONUS OR AWARD? OR INCENTIVE OR REWARD? ? OR GIFT OR MILES OR MILEAGE OR FREQUENT()FLYER OR PREFERRED OR POINTS OR DISCOUNT OR ADVANTAGE OR CLUE? ? OR CHARGE OR CREDIT OR DEBIT OR BANK OR CHECK OR CHEQUE OR PREPAID OR PRE()PAID OR FINANCIAL OR SMART OR C OR INTEGRATED()CIRCUIT OR MEMBER? ? OR AIRLINE? ?) (3N) (CARD? ? OR PROGRAM? ?

```
OR PLAN? ? OR SYSTEM? ? OR CLUB? ? OR SCHEME? ? OR ACCOUNT? ? OR POINT? ? OR MILE?
                AU=(YODO, F? OR YODO F? OR YODO (1N) (F OR FUMITAKE))
           11
S8
         1090
                S2 AND S3
S9
                S8 AND S5
           4
S10
               S9 FROM 347,350
                S8 AND (S4 OR S6)
S12
         680
               S11 FROM 347.350
S13
                S12 AND S4
          236
S14
           51
                S13 NOT AY>1998
                $14 AND (RESTOR??? OR RESTORATION OR RETURN?? OR REINSTAT??? OR
RESET? ? OR RESETTING OR (PUT OR PUTS OR GIV???) () BACK)
S16
           1
                S15 NOT S10
S17
           50
               S14 NOT S16
S18
           1.0
               S17 AND IC=(G060 OR G06F)
S19
           47
                S11 NOT S12
S20
          3.0
                S19 NOT PY>1999
           30
               RD (unique items)
S22
                S21 AND (RESTOR??? OR RESTORATION OR RETURN?? OR REINSTAT??? OR
RESET? ? OR RESETTING OR (PUT OR PUTS OR GIV???) () BACK OR REDEEM? OR REDEMPT?)
           3.0
                S21 AND S6
$24
           29
                S23 NOT S22
S25
          2.7
               S24 AND POINT? ?
S26
          27
               S25 NOT PY>1999
           2
                S7 AND S1
```

10/5/1 (Item 1 from file: 350)

DIALOG(R)File 350: Derwent WPIX

(c) 2010 Thomson Reuters. All rights reserved.

## 0018845809 Drawing available

WPI Acc no: 2009-G28643/200923

Overhead wire imaging device e.g. for overhead ground wire, has drive units rotating telescope in yaw and tilting directions, and video camera slid close to and spaced apart from telescope

Patent Assignee: AEROTEC YG (AERO-N); SHINNIPPON HELICOPTER KK (SHIN-N)

Inventor: HARADA M: MATSUSHITA M: MIYAGAWA N: NISHIKIGI Y

|               |      | Patent Fa | mily (1 patents, 1 cou | ntries ] |          |             |
|---------------|------|-----------|------------------------|----------|----------|-------------|
| Patent Number | Kind | Date      | Application Number     | Kind     | Date     | Update Type |
| JP 3149299    | U    | 20090319  | JP 200957              | U        | 20090108 | 200923 B    |

Priority Applications (no., kind, date): JP 200957 U 20090108

## Alerting Abstract JP U

NOVELTY - A yaw direction and tilting direction drive units (5.6) positioned on universal head mechanism (4), rotate a telescope (2) in yaw and tilting directions, respectively. A vide camera (3) is slid close and spaced apart from the telescope to image the overhead wire, using slide drive unit (8). The monitoring devices (12,13) display the image of overhead wire and a video recording apparatus (14) records the imaging of the overhead wire. The yaw and tilting direction drive units are controlled manually by control units (9,10) respectively.

9

USE - Imaging device of overhead wire such as overhead ground wire and power distribution line.

ADVANTAGE - The damage and degradation of overhead wire can be visually observed and conformed correctly.

DESCRIPTION OF DRAWINGS - The drawing shows a model of overhead wire imaging device. (Drawing includes non-English language text)

- 2 Telescope
- 3 Video camera
- 4 Universal head mechanism
- 5 Yaw direction drive unit
- 6 Tilting direction drive unit
- 8 Slide drive unit
- 9 Yaw direction control unit
- 10 Tilting direction control unit
- 11 Forward-backward movement control unit

Title Terms/Index Terms/Additional Words: OVERHEAD; WIRE; IMAGE; DEVICE; GROUND; DRIVE; UNIT; ROTATING; TELESCOPE; YAW; TILT; DIRECTION; VIDEO; CAMERA; SLIDE; CLOSE; SPACE; APART

10/5/2 (Item 2 from file: 350)

DIALOG(R)File 350: Derwent WPIX

(c) 2010 Thomson Reuters. All rights reserved.

0010883028 Drawing available

WPI Acc no: 2001-503061/200156

XRPX Acc No: N2001-373087

Mobile subscriber information reception/modification system for wireless prepaid telecommunication service, has network platform which responds to query message from service application after forwarding message to destination Patent Assignee: AG COMMUNICATION SYSTEMS CORP (AGCO-N)

Inventor: BATNI R P; CHRISTIANSEN A M; ZHAO B

|               |      | Patent Fa | mily (2 patents, 2 cou | ntries |          |             |
|---------------|------|-----------|------------------------|--------|----------|-------------|
| Patent Number | Kind | Date      | Application Number     | Kind   | Date     | Update Type |
| CA 2306161    | A1   | 20010524  | CA 2306161             | Α      | 20000419 | 200156 B    |
| US 6490450    | B1   | 20021203  | US 1999448749          | A      | 19991124 | 200301 E    |

Priority Applications (no., kind, date); US 1999448749 A 19991124

#### Alerting Abstract CA A1

NOVELTY - A network platform intercepts messages exchanged between home location register (HLR) (118) and serving mobile switching center (SMSC) (105). Information corresponding to a roaming mobile subscriber (RMS) (100) is extracted from the message and stored in network platform to be forwarded to original destination. The platform receives a query message from a service application and transmits a query response message back to service application.

DESCRIPTION - An INDEPENDENT CLAIM is also included for mobile subscriber information reception/modification method in wireless telecommunication network.

USE - For reception/modification of mobile subscriber information such as serving mobile switching center ID (MSCID), cell and sector location information, original dialed digits, subscriber profile and return address point code in support of wireless prepaid telecommunication service in integrated services digital network user part (ISUP).

ADVANTAGE - Enables efficient reception and modification of information by network platform, for offering improved wireless prepaid service.

DESCRIPTION OF DRAWINGS - The figure shows the block diagram of wireless prepaid system.

- 100 Roaming mobile subscriber
- 105 Serving mobile switching center
- 118 Home location register

Title Terms /Index Terms/Additional Words: MOBILE: SUBSCRIBER: INFORMATION: RECEPTION: MODIFIED:

SYSTEM; WIRELESS; PREPAYMENT; TELECOMMUNICATION; SERVICE; NETWORK; PLATFORM; RESPOND; OUERY; MESSAGE; APPLY; AFTER; FORWARDING; DESTINATION

∯h ∰/

Prawing available

a√ a

Balance type shutter and balancer therefor - comprises first and second pulleys which are interconnected by a wire and both include parts for the winding of the wire

| 200 |
|-----|
|     |

| Patent Number | Kind | Date | Application Number | Kind | Date | Update | Туре |
|---------------|------|------|--------------------|------|------|--------|------|
| DV .          | A    | 9    | DV                 | Α    | 9    | 9      | В    |
| 8             | Α    | 9    |                    | Α    | 9    | 9      | Е    |
| R             | A    | 9    | I.                 | Α    | 9    | 9      | Е    |
|               |      |      | D/                 | Α    | 9    |        |      |
| <b>S</b> I    | Α    | 9    | II .               | Α    | 9    | 9      | E    |
| 9 A           | Α    | 9    | D/                 | Α    | 9    | 9      | E    |
|               |      |      | y                  | Α    | 6    |        |      |
| K .           | A    | 9    | B/                 | Α    | 9    | 0      | Е    |
|               |      |      | I                  | Α    | 9    |        |      |

Priority Applications (no., kind, date); JP 1996281098 A 19961023

# Alerting Abstract WO A1

A balancer (11) includes a first balance pulley (20) provided to a winding drum (3) and a second pulley (40) connected to a coiled spring (31). These pulleys are interconnected by a wire (50). The first balance pulley includes a main pulley portion (25) for winding a tension wire in a first unwinding process from the full-open position and a zero point return pulley portion (26) for winding the wire from an intermediate position, and the zero point return pulley portion has an outer peripheral shape such that the tension wire passes through the axis of the pulley in the full-open position.

The second balance pulley (40) includes a cylinder portion (46) for unwinding the tension wire in the first unwinding process from the full-open position and a conical portion (47) for unwinding the wire from an intermediate position, and the conical portion has a small diameter on the cylinder portion side. An operation rope unit (11) having an operation rope (70) for rotating the winding drum on the indoor side is disposed. Further, the centre of rotation of a large pulley (220) is made eccentric in order to impart an angular characteristic to each rotation of a balance torque.

Title Terms /Index Terms/Additional Words: BALANCE; TYPE; SHUTTER; COMPRISE; FIRST; SECOND; PULLEY; INTERCONNECT: WIRE: PART: WIND

16/5/1 (Item 1 from file: 350) DIALOG(R)File 350: Derwent WPIX (c) 2010 Thomson Reuters. All rights reserved.

0007468747 Drawing available WPI Acc no: 1996-079476/199609

XRPX Acc No: N1996-066118

Telecommunications network with several telephones connected to ring server station - receives TDM frame from token ring and transmits frame to ring, frame includes START field, TOKEN field carrying indicating whether token is free, busy or controlled by ring server station

Patent Assignee: IBM CORP (IBMC); INT BUSINESS MACHINES CORP (IBMC)

Inventor: ALBANO A: CHUNIAUD R: FIESCHI J: LE P J F: LE PENNEC J: MICHEL P

| Patent Family ( 4 patents, 5 countries ) |      |          |                    |      |          |        |      |  |  |
|--|------|----------|--------------------|------|----------|--------|------|--|--|
| Patent Number                            | Kind | Date     | Application Number | Kind | Date     | Update | Туре |  |  |
| EP 695061                                | A1   | 19960131 | EP 1994480068      | A    | 19940728 | 199609 | В    |  |  |
| JP 8065327                               | Α    | 19960308 | JP 1995189511      | A    | 19950725 | 199620 | Е    |  |  |
| US 5592484                               | Α    | 19970107 | US 1995455826      | A    | 19950531 | 199708 | E    |  |  |
| US 5751714                               | A    | 19980512 | US 1995455826      | A    | 19950531 | 199826 | E    |  |  |
|  |      |          | US 1996727333      | Α    | 19961008 |        |      |  |  |

Priority Applications (no., kind, date): EP 1994480068 A 19940728

## Alerting Abstract EP A1

The telecommunication network receives (010) a Time Division Multiplex (TDM) frame from the token ring and transmits (60) the frame to the ring. The frame includes a START field, a TOKEN field carrying three values, one showing the token is free (FF), the second showing that it is busy (OO) and third (AA) controlled by ring server station (8).

A SNUM field represents a slot number, an ADDRE field is an identification address of emitting station, an ADDRE field is an identification address of receiving station. A SIGNA field represents the signalling message transmitted to the server station. Several TDM slots communicate the data within TDM frame. A processor (200) controls the detection (40) of the presence of the value in TOKEN, and replaces the value FF by the second value OO, to inform the server station that the token is requested.

USE/ADVANTAGE - Telecommunication network with several stations connected to token ring. System can use existing physical wiring in building and allows digital communication between stations, such as telephone sets.

Title Terms /Index Terms/Additional Words: TELECOMMUNICATION; NETWORK; TELEPHONE; CONNECT; RING; SERVE: STATION: RECEIVE: TDM: FRAME: TOKEN: TRANSMIT; START: FIELD: CARRY: INDICATE: FREE: BUSY: CONTROL: TIME: DIVISION: MULTIPLEX

18/5/1 (Item 1 from file: 350) DIALOG(R)File 350: Derwent WPIX (c) 2010 Thomson Reuters. All rights reserved.

0010266310 Drawing available WPI Acc no: 2000-578931/200054 XRPX Acc No: N2000-428431

Detecting, charging and blocking method for services involves transferring blocking token to customer's ID card to block at least some of available services

Patent Assignee: SWISSCOM AG (SWIS-N)

Inventor: RITTER R

| Patent Number | Kind | Date     | Application Number | Kind | Date     | Undate                                | Type      |
|---------------|------|----------|--------------------|------|----------|---------------------------------------|-----------|
|               | ·    |          | ,                  | ;    |          | · · · · · · · · · · · · · · · · · · · | ********* |
| WO 2000031691 | A1   | 20000602 | WO 1998CH501       | A    | 19981123 | 200054                                | В         |
| AU 199911393  | A    | 20000613 | WO 1998CH501       | Α    | 19981123 | 200054                                | Е         |
|               |      |          | AU 199911393       | A    | 19981123 |                                       |           |

Priority Applications (no., kind, date): WO 1998CH501 A 19981123

#### Alerting Abstract WO A1

NOVE\_ITY - The method involves detecting customer data from a customer ID card (2) when the device (1) is accessed, whereby service data are provided by the service device relating to the services for the customer when accessing and/or disengaging. The detected customer data are combined with the detected service data and passed to a service center (5) for charging. To block at least certain of the services to a customer a blocking token is transferred to his ID card.

DEFCURITYON\_INITYPEDITYPETC (1 Alba from a less included for an ID\_card courte customer data and a service device for

DESCRIPTION - INDEPENDENT CLAIMS are also included for an ID card contg. customer data and a service device for providing services to customers

- USE For detecting, charging and blocking of services provided by a service provider.
- ADVANTAGE The new and improved method enables services that start for a customer when accessing a service device and end when disengaging from the service device to be detected, charged for and esp. blocked.

DESCRIPTION OF DRAWINGS - The drawing shows a block diagram representation of a service device connected to a service center via a mobile network

- 1 service device
- 2 ID card
- 4 network
- 5 service center

Title Terms /Index Terms/Additional Words: DETECT; CHARGE; BLOCK; METHOD; SERVICE; TRANSFER; TOKEN; CUSTOMER: ID: CARD: AVAILABLE.

18/5/4 (Item 4 from file: 350)

DIALOG(R)File 350: Derwent WPIX

(c) 2010 Thomson Reuters. All rights reserved.

0007476263 Drawing available

WPI Acc no: 1996-087141/199609

XRPX Acc No: N1996-073081

Cheque writing point of sale system for goods and services paid from consumer funds - has first communication device integral to point of sale terminal for electronically communicating with central computer system Patent Assigner ERSOURCE TECHNOLOGY SERVICES INC (RESON).

Inventor: HILLS R R; NICHOLS H R

|               |      | Patent Fa | umily (1 patents, 1 cou | ntries ) |          |             |
|---------------|------|-----------|-------------------------|----------|----------|-------------|
| Patent Number | Kind | Date      | Application Number      | Kind     | Date     | Update Type |
| US 5484988    | A    | 19960116  | US 1992975717           | A        | 19921113 | 199609 B    |
|               |      |           | US 1994257390           | A        | 19940609 |             |

Priority Applications (no., kind, date): US 1992975717 A 19921113; US 1994257390 A 19940609

#### Alerting Abstract US A

The system includes a **point** of sale terminal adapted to receive consumer **bank** account information from any **bank check**, a **central** computer **system**. A first **communications** device is integral to the **point** of sale terminal for electronically **communication** with the **central** computer **system**. A memory device is integral to the **point** of sale terminal for temporarily

9

storing the consumer bank account information.

The central computer system has a second communication device for receiving information from a number of the point of sale terminals. The central computer system second communication device enables the central computer system to communicate with external databases for performing a consumer bank account status search and further enabling automated clearing house communication for transferring funds without using the bank check as a negotiable instrument. USE/ADVANTAGE - For integrating and processing of purchases while using cheque as basic source of identification of individual's bank. Provides much wider range of financial transactions.

Title Terms/Index Terms/Additional Words: CHEQUE; WRITING; POINT; SALE; SYSTEM; GOODS; SERVICE; PAY; CONSUME; FUND; FIRST; COMMUNICATE; DEVICE; INTEGRAL; TERMINAL; ELECTRONIC; CENTRAL; COMPITER;

18/5/6 (Item 6 from file: 350) DIALOG(R)File 350: Derwent WPIX (c) 2010 Thomson Reuters. All rights reserved.

0006622063 Drawing available WPI Acc no: 1993-370333/199347

XRPX Acc No: N1993-285924

Shopping system with spaced customer selection and goods dispatch points - uses data link to transmit selected goods information to dispatch and collection point outside town centre

Patent Assignee: ACCUMULATA VERW GES MBH (ACCU-N); ACCUMULATA VERW GMBH (ACCU-N)

Inventor: SCHLAMP H

|                         |      | Patent Far | mily (10 patents, 18 co | untries | ()       |        |      |
|-------------------------|------|------------|-------------------------|---------|----------|--------|------|
| Patent Number           | Kind | Date       | Application Number      | Kind    | Date     | Update | Туре |
| EP 570913               | A2   | 19931124   | EP 1993108094           | Α       | 19930518 | 199347 | В    |
| DE 4217045              | A1   | 19931125   | DE 4217045              | A       | 19920522 | 199348 | Е    |
| DE 4217045              | C2   | 19940825   | DE 4217045              | A       | 19920522 | 199432 | E    |
| EP 570913               | A3   | 19940713   | EP 1993108094           | Α       | 19930518 | 199528 | E    |
| US 5431250              | A    | 19950711   | US 199363828            | A       | 19930520 | 199533 | Е    |
| EP 570913               | B1   | 19970312   | EP 1993108094           | A       | 19930518 | 199715 | E    |
| DE 59305689             | G    | 19970417   | DE 59305689             | Α       | 19930518 | 199721 | E    |
| ntetotototototototototo |      |            | EP 1993108094           | A       | 19930518 |        |      |
| ES 2098587              | Т3   | 19970501   | EP 1993108094           | A       | 19930518 | 199724 | E    |
| TW 357308               | Α    | 19990501   | TW 1994100653           | Α       | 19940126 | 199937 | NCE  |
| KR 199711855            | B1   | 19970718   | KR 199314491            | Α       | 19930729 | 199947 | NCE  |

Priority Applications (no., kind, date); DE 4217045 A 19920522; KR 199314491 A 19930729; TW 1994100653 A 19940126

#### Alerting Abstract EP A2

The shopping system has a customer selection point (1) at which sample goods are displayed and a remote dispatch point (3) for the selected items communicating with the selection point via a data line (2).

Each customer uses an interrogation device (13) with an input keyboard (15) for selecting the required items, with a cashpoint for calculating the corresponding charge. A central computer (53) at the dispatch point is used to select the required items, which are released when the customer inserts a payment receipt in a reader (23) at the dispatch point.

ADVANTAGE - Allows decentralised shopping using park-and-ride centres from which selected goods can be collected.

Title Terms /Index Terms/Additional Words: SHOPPING; SYSTEM; SPACE; CUSTOMER; SELECT; GOODS; DISPATCH: POINT: DATA: LINK: TRANSMIT: INFORMATION: COLLECT: TOWN: CENTRE

18/5/8 (Item 1 from file: 347) DIALOG(R)File 347: JAPIO (c) 2010 JPO & JAPIO. All rights reserved.

07965721 \*\*Image available\*\* RETTING TICKET PURCHASE SYSTEM

Pub. No.: 2004-078480 [JP 2004078480 A ] Published: March 11, 2004 (20040311)

Inventor: YAZAKI YUKIO TSUJINO IKUHIRO Applicant: YAZAKI YUKIO

TSUJINO IKUHIRO IRITANI KIYOHARU

Application No.: 2002-236678 [JP 2002236678] Filed: August 14, 2002 (20020814) International Class: G06F-017/60: G07C-013/00

### ABSTRACT

PROBLEM TO BE SOLVED: To attain the purchase of betting tickets, the repurchase of betting tickets by a dividend and reimbursement in an instant without locking an account.

SOLUTION: Transfer is made from a point owner's bank account to a sponsor's bank account opened in the same bank. to increase points held to a database, and the points are exchanged with betting tickets. The points equivalent to the dividend are added by a point computing engine based on winning horse information (a race result). If a reimbursement instruction is given, the points held to the database are decreased, and the amount equivalent to the decrease is transferred from the sponsor's bank account to the point owner's bank account.

COPYRIGHT: (C)2004,JPO

18/5/9 (Item 2 from file: 347) DIALOG(R)File 347: JAPIO (c) 2010 JPO & JAPIO. All rights reserved.

07347400 \*\*Image available\*\*

ELECTRONIC POINT CARD METHOD, AND METHOD, PROGRAM AND RECORDING MEDIUM FOR ISSUING ELECTRONIC POINT

Pub. No.: 2002-215891 [JP 2002215891 A ] Published: August 02, 2002 (20020802)

Inventor: SENDA KOJI KOBAYASHI KUNIO MORITA HIKARI

Applicant: NIPPON TELEGR & TELEPH CORP (NTT) Application No.: 2001-012080 [JP 200112080]

Filed: January 19, 2001 (20010119)

International Class: G06F-017/60: G07G-001/12

ABSTRACT

PROBLEM TO BE SOLVED: To reduce the amount of calculation executed by a point issuing center.

SOLUTION: A point issuing center receives the hash value h(SVu) of secret information SVu from a user in advance. If receiving a first point request Req, the center selects a piece of information from SVs, SVs, SVs\* and more, and sends h(SVs, h(SVu)) with signature to the user as PNT. If receiving a second or later point request Req=(previous PNT, h(SVu)), the center calculates the hash order t of a previous PNT. For the accumulated point number h, if the order t is greater than a value b, ht-b (SVs, h(SVn))=PNT is sent to the user. If not, hn-(b-t) (SVs, h(SVu))=PNT, and hn (SVs', h(SVu)) and is signature are sent to the user.

COPYRIGHT: (C)2002.JPO

18/5/10 (Item 3 from file: 347) DIALOG(R)File 347: JAPIO (c) 2010 JPO & JAPIO. All rights reserved.

07248847 \*\*Image available\*\*
POINT EXCHANGING SYSTEM

Pub. No.: 2002-117304 [JP 2002117304 A] Published: April 19, 2002 (20020419) Inventor: FUJIWARA KENJI Applicant: I CONVENIENCE KK

Application No.: 2000-305458 [JP 2000305458]

Filed: October 04, 2000 (20001004)

International Class: G06F-017/60: G07G-001/12: G07G-001/14

ABSTRACT

PROBLEM TO BE SOLVED: To provide a point exchanging system converting and integrating different point services into one point service so as to be able to effectively use an unused point.

SOLUTION: When service demand information sent from a shop terminal is received by a user, a management server sends inquiry information to the server of each of point issuing companys or a point issuing company designated by the service demand information so as to make an inquiry about a present point amount held by the user. When present point notice information is sent from the point issuing company server, the management server extracts a point exchange ratio of the point issuing company from a point database so as to convert the present point amount of the user and displays the service contents matching with the converted point amount to the user via the shop terminal. If the user inputs use of the service via the shop terminal, a service ticket is issued from the shop terminal, and at the same time, point use information of the user is sent to the server of the point issuing company corresponding to the used point so as to update the point amount of the user.

COPYRIGHT: (C)2002,JPO

26/5/1 (Item 1 from file: 35)
DIALOG(R)File 35: Dissertation Abs Online
(c) 2010 ProQuest Info&Learning. All rights reserved.

01796996 ORDER NO: AADAA-19934200

ENHANCEMENT OF ELECTRICAL SIGNALLING BY NEURONAL MORPHOLOGY: NEW PRESYNAPTIC AND POSTSYNAPTIC MECHANISMS (SYNAPTIC TRANSMISSION, ACTION POTENTIALS, REFLECTION,

9

### LEECH)

Author: BACCUS, STEPHEN ALEXANDER

Degree: PH.D.

Vear: 1998

Corporate Source/Institution: UNIVERSITY OF MIAMI ( 0125 )

Supervisor: KENNETH J. MULLER

Source: Volume 6006B of Dissertations Abstracts International.

PAGE 2536 . 93 PAGES

Descriptors: BIOLOGY, NEUROSCIENCE : BIOPHYSICS, GENERAL

Descriptor Codes: 0317: 0786

Effects of neuronal morphology on synaptic transmission and action potential initiation were demonstrated in the nervous system of the leech, where it is possible to record at separate locations from neurons with known morphologies and defined behavioral roles. Specific questions addressed were (1) How do a neuron's morphological and electrical properties influence whether action potentials reverse their direction of propagation, known as reflection? (2) What is the effect of reflection synaptic transmission?? (3) How do reflection and action potential failure influence transmission from a spatially distributed synapse? (4) How does the morphology of a postsynaptic neuron influence firing rate by producing multiple impulse initiation sites?

Chapter I describes how action potentials reflect at central axon branch **points** of pressure mechanosensory neurons (P cells). Reflection operates as a new mechanism to enhance synaptic transmission from a subset of a neuron's branches. Reflection can change with electrical activity, making this enhancement of transmission reversible. Impulses from the periphery activated a synapse, then reflected from a central branch **point**, and then quickly activated the synapse a second time, greatly increasing transmission by producing facilitation. A compartmental model based on experimental data indicates that reflection can occur for a greater range of membrane morphology than previously thought.

Chapter II describes how reflection and action potential failure, or conduction block, at P cell central branch points affect synaptic transmission to the S cell, a neuron essential for a type of nonassociative learning. Reflection at P cell central branch points increased transmission, and conduction block at the same branch points decreased it.

Chapter III describes a new mechanism to increase the firing rate of a neuron, initiation of impulses at multiple sites. In the S cell chain, a linear group of strongly electrically coupled neurons, a single skin stimulus evoked synaptic input that initiated impulses at multiple locations. Impulses that arose at different sites initiated at different times, and therefore did not collide, but propagated throughout the chain.

Neuronal structure, therefore, can affect signalling by influencing activity in separate sets of presynaptic terminals within a single neuron, and by creating multiple initiation sites that can increase postsynaptic activity.

26/5/2 (Item 2 from file: 35)

DIALOG(R)File 35: Dissertation Abs Online

(c) 2010 ProQuest Info&Learning. All rights reserved.

0967895 ORDER NO: AAD87-23735

# APPLICATION OF INFORMATION THEORY CONCEPTS IN THE INVESTIGATION OF THE GROWTH PATTERN OF PRODUCTION, DISTRIBUTION, AND VELOCITY OF INFORMATION

Author: ATTIA, ABDEL-HAMEED MOHAMMED

Degree: PH.D

Year: 1987

Corporate Source/Institution: NORTH TEXAS STATE UNIVERSITY (0158)

Source: Volume 4808A of Dissertations Abstracts International.

PAGE 1918 . 254 PAGES

Descriptors: INFORMATION SCIENCE

Descriptor Codes: 0723

The objective of this research is the investigation of the patterns of information growth to test whether there has been an "information explosion." To tackle the main problem, there are three issues which need to be addressed: (1) the concept information dimensionality. (2) determination of common parameters to measure the amount of information within each

9

dimension; and (3) a working definition of "explosiveness."

The independent variable is time. The dependent variables are: (1) information production-operationalized by the yearly growth of copyrights, inventions designs, Doctorates, and Library of Congress holdings; (2) information distribution-operationalized by the yearly growth of telephones miles of telephone wire, radio and television stations, and post offices; (3) information flow-operationalized by the yearly growth of average daily telephone conversations, pieces of matter handled in post offices, number of periodicals, number of radio and television sets, and number of books.

Preliminary analysis of the findings reveals that there has not been an explosive increase in the information production area. The criterion on the whole period to be explosive has not been met by any of the information production variable to the findings in the information production variable the production area.

Contrary to the findings in the information production, there has been an explosive growth in the information distribution. Most of the variables have met the criterion of explosiveness for the whole curve covering the span of this study.

As for the information flow, the findings reveal that there have been explosive and unexplosive increases as well as unexplosive decreases at different points for most of the variables. Only one variable has met the criterion of explosiveness for the whole curve, signifying that the overall degree of explosiveness for the information flow falls between information distribution and information production. The general conclusion is that for the last one hundred and twenty-five years, the American society has witnessed an explosive growth in the distribution of information, a lesser degree in the velocity of information, and none in the real generation of information.

26/5/3 (Item 1 from file: 474) DIALOG(R)File 474: New York Times Abs (c) 2010 The New York Times. All rights reserved.

# 00811181 NYT Sequence Number: 081959771029

(Natl Comm on Electronic Funds Transfer urges changes in banking and consumer protection to prepare for nationwide EFT system. 398-page rept concludes that consumers and financial institutions would be permitted to make the proposes that state and Federally chartered institutions be allowed to offer debit services, withdrawals from accounts anywhere in US. Issues warning in case of deposit-taking services. Recommends that banks and other depository institutions be permitted to set up terminals within states and across state lines. Favors allowing Fed Reserve to continue operating its automated clearing houses. Adds that Fed Reserve should not get involved with point-of-sale switching facilities. Warns that current legal safeguards protecting privacy of financial transactions are not sufficient to deal with computer-based EFT system (S).)
MILLETTL MARIO A

New York Times , Col. 1 , Pg. 29

Saturday October 29 1977

Document Type: Newspaper Journal Code: NYT Language: English Record Type: Abstract

Company Names: ELECTRONIC FUNDS TRANSFER, NATIONAL COMMISSION ON; FEDERAL RESERVE SYSTEM

Descriptors: BANKS AND BANKING; CONSUMER PROTECTION; CREDIT CARDS AND ACCOUNTS; CUSTOMER BANK COMMUNICATION TERMINALS; ELECTRONIC FUNDS TRANSFER SYSTEMS (EFTS); POINT OF SALE TERMINALS; PRIVACY, RIGHT OF; REFORM AND REORGANIZATION (INSTITUTIONAL); SAVINGS ACCOUNTS AND CERTIFICATES

Personal Names: MILLETTI MARIO A

26/5/4 (Item 2 from file: 474) DIALOG(R)File 474: New York Times Abs (c) 2010 The New York Times. All rights reserved.

#### 00150732 NYT Sequence Number: 004475711214

(Nassau County Planning Comm makes pub controversial 15-yr master plan for county; cite balanced transportation system as 1 of plan's major goals; notes most transportation problems are caused by dependence on automobile for intra-county trips; recommends coordination of bus and rail transit and improved transfer points and construction of MTA transportation center in Hicksville)

New York Times , Col. 1 , Pg. 39

Tuesday December 14 1971

Document Type: Newspaper Journal Code: NYT Language: English Record Type: Abstract

Company Names: TRANSPORTATION AUTHORITY, METROPOLITAN (MTA)

Descriptors: TRANSIT SYSTEMS

Geographic Names: LONG ISLAND (NY); NEW YORK CITY METROPOLITAN AREA

26/5/5 (Item 1 from file: 583)

DIALOG(R)File 583: Gale Group Globalbase(TM)

(c) 2002 Gale/Cengage. All rights reserved.

09142036

Soluciones integradas para la gestion de comercios

SPAIN: NEW SOFTWARE FOR RETAILERS Alforia (AL.) 01 Jul 1999 p.60

Language: SPANISH

The sSpanish-based's software designer Grupo SP has launched two new products: 'TPVplus' and 'ContaPlus Pyme'. ContaPlus Pyme' targets small companies and it is a software package formed by 'FacturaPlus', 'NominaPlus', and 'ContaPlus'. It is used to manage relevant operating aspects of a small company (wages, accounting and balance, payments, and other). The other product, 'TPVplus', targets retailers, and offers the possibility of creating an Internet catalogue, receiving orders through Internet, and connecting different sales points with the purchase central. The solution is also useful in other management aspects, and it is adapted to v2k and Euro currency.

Company: GRUPO SP

Product: Wholesale Trade (5000); Telecommunications (4810); Event: General Management Services (26); Product Design & Development (33); Country: Spain (4SPA);

26/5/6 (Item 2 from file: 583) DIALOG(R)File 583: Gale Group Globalbase(TM)

(c) 2002 Gale/Cengage. All rights reserved.

06456134

Sparkassen und Otelo kooperieren

GERMANY: EC CARD WITH TELEPHONE FUNCTION Handelsblatt ( HT ) 10 Apr 1997 p.9

Language: GERMAN

The ec eurocheques cards with chip functions, which are already issued by German Sparkasse banks, are to be used also as telephone cards. This was agreed between German telecoms provider Otelo, a joint venture of RWE and Veba, and Deutscher Sparkassen- und Giroverband. Sparkasses lessen will start a test in June 1997. The telephone charges are booked from the card holder's account. The card holder also needs a newly developed reading device in order to use his card for calling. This device in combination with his ec-card PIN code enable the card holder to dial into the Otelo network. 20mn Sparkasse customers have a eurocheque card.

Company: VEBA; RWE; OTELO

Product: Debit Card Svcs (6020DC); Nonbank Credit Card Firms (6141); Smart Cards (3078SC); Consumer Finance Institutions (6140); Electronic Point of Sale Systems (3573EP); Electronic Banking Svcs (6005); Telephone Communications (4811); Telecommunications (4810); Telephone Communications (4811); Telecommunications (4810); Telephone

9

Event: Product Design & Development (33); Planning & Information (22);

Country: Germany (4GER);

26/5/7 (Item 3 from file: 583) DIALOG(R)File 583: Gale Group Globalbase(TM) (c) 2002 Gale/Cengage. All rights reserved.

06054269

Battle heats up over credit cards

HONGKONG: ON HK CREDIT CARD MARKET South China Morning Post (XKT) 29 Sep 1994 BPp.15

Language: ENGLISH

Credit card operators in Hong Kong are selling various gimmicks in a bid to reap the market share. To attract more young cardholders, Hang Seng Bank is launching "The beat goes on showcase" program to offer concert tickets of Vivian Chow. Standard Chartered Bank embarks on the "Price Protection" with promise that the bank will pay cardholders the gap between the identical item at a lower price and the purchase price. Dah Sing Bank, the newcomer, unveils "Cash Reward Points", "Cash Reward" and "Balance Transfer Program" for cardholders. For Manhattan cardholders who use electronic payment and have a debit balance will be awarded an annual fee waiver. Hongkong Bank, the biggest player in the market, is offering a HKD 3 mn flat in a lucky draw to lure new cardholders. Indeed Hongkong Bank's market share has been diminished slowly recently. Aggressive marketing of other banks such as Citibank have put pressure on it. Moreover, the threat of the Bank of China group cannot be ignored as 1997 is approaching.

Company: BANK OF CHINA: CITIBANK: HONGKONG BANK: MANHATTAN: DAH SING BANK: STANDARD CHARTERED BANK: HANG SENG BANK

Product: Credit Card Services (6020CC): Nonbank Credit Card Firms (6141): Banking Institutions (6010): Event: Market & Industry News (60); Planning & Information (22); Marketing Procedures (24); Country: United Kingdom (4UK); Hong Kong (9HON); United States (1USA);

26/5/8 (Item 1 from file: 2). DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

07130067

Title: Excited states and electron transfer mechanism in the photosynthetic reaction center of Rhodopseudomonas

viridis: SAC-CI study Author(s): Nakatsuii, H.1: Hasegawa, J.1: Ohkawa, K.1

Affiliation(s):

Dept. of Synthetic Chem., Kyoto Univ., Japan

Journal: Chemical Physics Letters, vol.296, no.5-6, pp.499-504

Publisher: Elsevier

Country of Publication: Netherlands Publication Date: 13 Nov. 1998

ISSN: 0009-2614

ISSN Type: print

SICI: 0009-2614(19981113)296:5/6L.499:ESET:1-U

CODEN: CHPLBC

Document Number: S0009-2614(98)01034-3

U.S. Copyright Clearance Center Code: 0009-2614/98/\$19.00 Item Identifier (DOI): 10.1016/S0009-2614(98)01034-3

Language: English

Document Type: Journal Paper (JP)

Treatment: Theoretical or Mathematical (T)

Abstract: The symmetry adapted cluster (SAC)-configuration interaction (CI) method has been utilized to assign the excited states in absorption and linear dichroism spectra and to clarify the mechanism of the unidirectionality in the electron

9

transfer of the photosynthetic reaction center of Rhodopseudomonas viridis. We have calculated the ground, excited, ionized, and electron-attached states of all the chromophores in the reaction center. The protein effects were included with the use of the point-charge model. (22 refs.)

Subfile(s): A (Physics)

Descriptors: configuration interactions; excited states; ground states; molecular biophysics; organic compounds; photosynthesis

Identifiers: point charge model; electron transfer mechanism; photosynthetic reaction center; Rhodopseudomonas viridis; symmetry adapted cluster-configuration interaction method; excited states; absorption spectra; linear dichroism spectra; unidirectionality; excitation spectrum; ground state; electron-attached state; protein effects; chromophores; SAC-CI calculations; selectivity; localisation

Classification Codes: A8715M (Interactions with radiations at the biomolecular level); A8630P (Photosynthesis (energy conversion)); A8725B (Bioenergetics); A3120T (Electron correlation and CI calculations (atoms and molecules))

INSPEC Update Issue: 1999-002

Copyright: 1999, IEE

26/5/9 (Item 2 from file: 2) DIALOG(R)File 2: INSPEC

(c) 2010 The IET. All rights reserved.

#### 06268724

Title: Allocation of distribution system losses to consumers in deregulated electricity supply industries

Author(s): Macqueen, C.N.1; Irving, M.R.1

Affiliation(s):

Brunel Univ., Uxbridge, UK

Book Title: Fourth International Conference on Power System Control and Management (Conf. Publ. No.421)

Inclusive Page Numbers: 268-72 Publisher: IEE, London Country of Publication: UK Publication Date: 1996

Conference Title: Fourth International Conference on Power System Control and Management

Conference Date: 16-18 April 1996 Conference Location: London, UK

ISBN: 0-85296-653-9 Item Identifier (DOI): 10.1049/cp:19960276

Number of Pages: xii+285

Language: English

Document Type: Conference Paper (PA)

Treatment: Economic (E); Theoretical or Mathematical (T)

Abstract: Moves towards the deregulation of the electricity supply industry in many parts of the world have led to the introduction of varying degrees of competition in certain sectors of the business. In countries such as the UK, where competition has been extended into the supply side of the business, it has been necessary to distinguish between the costs of energy and the costs of transporting the energy to the consumer. Currently in the UK, nonfranchise customers (whose annual maximum demands exceed 100 kW) may purchase energy from any licensed supplier, paying the local distribution company a use of system' charge for transmission of the electricity to the point of use. An important element of these use of system tariffs is a table of loss adjustment factors that reflect the percentage by which purchases of energy at entry points to the system must exceed consumption at the point of use to account for the losses which occur in between. Distribution companies are obliged to calculate loss adjustment factors on an individual basis for major consumers, and this has brought about the need for techniques which allocate losses on a more detailed basis than was necessary prior to deregulation. This paper describes a new approach to the evaluation of loss adjustment factors for distribution systems, which combines the use of graph theory with readily available load flow results, to assign the losses in each line or transformer within the system to the consumers supplied by it. (4 refs.)

Subfile(s): B (Electrical & Electronic Engineering); E (Mechanical & Production Engineering)

Descriptors: costing; distribution networks; economics; electricity supply industry; load flow; losses; power system interconnection; tariffs

9

**Identifiers:** distribution system; losses allocation; deregulated electricity supply industries; UK; energy costs; transportation costs; tariffs; loss adjustment factors; graph theory; load flow results

Classification Codes: B8120J (Distribution networks); B8110B (Power system management, operation and economics); E3040 (Public utilities)

INSPEC Update Issue: 1996-019

Copyright: 1996, IEE

26/5/10 (Item 3 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

## 06206301

Title: Integrated manufacturing control installation experiences

Author(s): Cooper. M.

Book Title: FieldComms 95. Making the Most of Fieldbus. Conference Proceedings

Inclusive Page Numbers: 25-33 vol.2

Publisher: GGH Marketing Commun., Titchfied

Country of Publication: UK

Publication Date: 1995
Conference Title: Proceedings of FieldComms '95. Industrial Networking Conference

Conference Date: 7-8 Nov. 1995 Conference Location: Hinckley, UK Part: vol.2 Number of Pages: 4 vol. (51+52+87+57) Language: English

Document Type: Conference Paper (PA)
Treatment: Practical (P)

Abstract: The problem with most control equipment is that it is designed mainly for individual areas of the manufacturing process with the processing power and programming logic stored local to the process controlled. Communications between these areas has involved different protocols to be written and implemented in different processors communicating over a serial link with the overhead of handshaking and acknowledgements. The resultant frustrations caused by the different areas of automation having equipment incompatible with each other and unable to communicate has produced most system design business for communications consultants. The original protocols implemented over a serial link such as Modbus or Bitbus have involved building the variable handling into messaging formats with the resultant delays in performance. This coupled with the slow speed of much of the serial line interfaces on the equipment has resulted in a performance level of no use for distributing the control function. Even the monitoring function can be limited due to communications being point to point resulting in a central bottleneck for all the data that is communicated from all remote points. Fieldbus has changed all this. One chip built into all the equipment results in automatic broadcasting of the variable status across the entire bus at a speed consistent with control being located at many points. Monitoring can also now be achieved at many points since all the status data is available at any point on the Fieldbus at which a node is located. Different functions that have to be monitored can be delegated to different management points resulting in a more balanced system. (O refs.)

Subfile(s): C (Computing & Control Engineering); E (Mechanical & Production Engineering)

Descriptors: computer integrated manufacturing; field buses; industrial control

Identifiers: integrated manufacturing control installation experiences; manufacturing process; programming logic; handshaking; acknowledgements; Modbus; Bitbus; variable handling; messaging formats; delays; Fieldbus; automatic broadcasting; variable status

Classification Codes: C3355 (Control applications in manufacturing processes); C7420 (Control engineering computing); C7480 (Production engineering computing); E0410D (Industrial applications of IT); E1510 (Manufacturing systems); E1520 (Manufacturing processes)

International Patent Classification:

G05B-0015/00 (Systems controlled by a computer)

G05B-0019/418 (Total factory control, i.e. centrally controlling a plurality of machines, e.g. direct or distributed numerical control (dnc), Bexible manufacturing systems (fms), integrated manufacturing systems (ims), computer integrated manufacturing (cim)

INSPEC Update Issue: 1996-009

Copyright: 1996, IEE

26/5/11 (Item 4 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

04753227

Title: Secure off-line electronic fund transfer between nontrusting parties

Author(s): Even, S.1

Affiliation(s):

1 Dept. of Comput. Sci., Technion, Israel Inst. of Technol., Haifa, Israel

Book Title: Smart Card 2000: The Future of IC Cards. Proceedings of the IFIP WG 11.6 International Conference

Inclusive Page Numbers: 57-66
Publisher: North-Holland Amsterdam

Country of Publication: Netherlands

Publication Date: 1989

Conference Title: Smart Card 2000: The Future of IC Cards, IFIP WG 11.6 International Conference

Conference Date: 19-20 Oct. 1987

Conference Location: Laxenburg, Austria Conference Sponsor: IFIP Editor(s): Chaum, D. Schaumuller-Bichl, I.

ISBN: 0-444-70545-7 Number of Pages: xi+218

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: A new monetary system is described. It is based on electronic wallets which look like pocket calculators. The electronic wallet is energized by a battery, has a display and a keyboard. Two wallets can communicate via infra-red light signals. The wallets store unforgeable (electronic) money and payment can be made, in seconds, from one with to another (or to a point of sale or bank terminal). The wallet is updated, by connecting it to a bank terminal or through a telephone. During the update, the transactions stored in the wallet are transferred to the bank, the wallet is loaded with new sum of money, the time (including date), invalidation date and cryptographic data. The owner of the wallet is the only person who can use it since he loang knows the password (PIN). In addition to paying and receiving, the owner can review the balance and past transactions performed since the last update. A cryptographic protocol is used to prevent forgery of money and fraud. The protocol was proved to be free of error and secure. It uses a public-key signature cryptosystem which allows a relatively fast authentication of signatures. (14 regs.)

Subfile(s): C (Computing & Control Engineering); E (Mechanical & Production Engineering)

Descriptors: cryptography; EFTS; protocols; smart cards

Identifiers: secure offline EFTS; IR signal communication; unforgeable money; updating; signature authentication; electronic fund transfer; nontrusting parties; monetary system; electronic wallets; point of sale; bank terminal; transactions; invalidation date; cryptographic data; password; PIN; balance; protocol; fraud; public-key signature cryptosystem Classification Codes; C7120 (Financial computing); C6130 (Data handling techniques); E0410F (Business applications of

IT)

International Patent Classification:

G06F-0007/00 (Methods or arrangements for processing data by operating upon the order or content of the data handled)
G06K-0019/07 (With integrated circuit chips)

G06Q-0020/00 (Payment schemes, architectures or protocols)

G06Q-0030/00 (Commerce, e.g. marketing, shopping, billing, auctions or e-commerce)

G06Q-0040/00 (Finance, e.g. banking, investment or tax processing; Insurance, e.g. risk analysis or pensions)

INSPEC Update Issue: 1990-023

Copyright: 1990, IEE

26/5/12 (Item 5 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

#### 04746948

Title: Ward cuts costs, speeds transaction time: central system saves \$150,000 per month, trim POS times to 1.5

Journal: Chain Store Age Executive, vol.66, no.9, pp.65-6

Country of Publication: USA

Publication Date: Sept. 1990

ISSN: 0193-1199 ISSN Type: print CODEN: COMLEF Language: English

Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Montgomery Ward is cutting its communications costs and reducing point-of-sale transaction times with a new central computer system it has dubbed its Advanced Data Communications Utility (ADCU). The system, based on single fault-tolerant hardware from Tandem Computers and software developed by CACI International, processes requests received from all of Ward's 334 stores via leased lines. The purpose of the ADCU is to expedite communication between the chain's

stores and serve as a central processor for all customer transaction and inventory data. (0 refs.)

Subfile(s): D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: credit transactions; point of sale systems; retailing

Identifiers: Montgomery Ward: point-of-sale transaction times; central computer system; fault-tolerant hardware; Tandem

Computers; CACI International

Classification Codes: D2140 (Marketing, retailing and distribution applications of IT); E0410F (Business applications of

International Patent Classification:

G06Q-0020/00 (Payment schemes, architectures or protocols)

INSPEC Update Issue: 1990-023

Copyright: 1990, IEE

26/5/13 (Item 6 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

# 04486671

Title: POS a hit at Lucky Stores

Journal: ABA Banking Journal, vol.81, no.9, pp.112, 114, 116

Country of Publication: USA Publication Date: Sept. 1989

ISSN: 0194-5947 ISSN Type: print CODEN: ABAJD5

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Customers who shop in the 300 supermarkets operated by Lucky Stores Inc., in California and Nevada can use their automated teller machine cards for any purchase. Lucky has been operating an on-line debit point-of-sale system for almost five years. The POS debit transactions involve electronic transfer of funds from customer's bank accounts to Lucky. While the actual transfers may not take place immediately, industry spokesmen point out the time and amount of a POS purchase is recorded immediately by a bank's computer, enabling it to track the actual amount in a customer's account. ( 0 refs.)

Subfile(s): D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: point of sale systems

Identifiers: POS; Lucky Stores; debit transactions

Classification Codes: D2140 (Marketing, retailing and distribution applications of IT); E0410F (Business applications of

International Patent Classification:

G06O-0020/00 (Payment schemes, architectures or protocols)

INSPEC Update Issue: 1989-023

Copyright: 1989, IEE

26/5/14 (Item 7 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

04147568

Title: Shipment composition enhancement at a consolidation center

Author(s): Daganzo, C.F.<sup>1</sup>

Affiliation(s):

<sup>1</sup> Inst. of Transportation Studies, California Univ., Berkely, CA, USA

Journal: Transportation Research, Part B (Methodological), vol.22B, no.2, pp.103-24

Country of Publication: UK Publication Date: April 1988

ISSN: 0191-2615

ISSN Type: print

CODEN: TRBMDY U.S. Copyright Clearance Center Code: 0191-2615/88/\$3.00+.00

Language: English

Document Type: Journal Paper (JP)

Treatment: Theoretical or Mathematical (T)

Abstract: When items of different shapes, sizes and weights are transported, some item combinations make most effective use of a vehicle's capacity. A consolidation center, receiving shipments of various items from different origins, can acta as point where those combinations can be formed. While sending shipments through the center invariably increases the total item-miles traveled, judicious shipping can reduce the vehicle-miles traveled. The paper examines ways in which loads should be made up to achieve as large a reduction in vehicle-miles as possible. The paper first considers willing block in which items are sent directly from one origin to one destination, and then analyzes a terminal serving many origins and one destination. The understanding developed from the building block leads to a linear programming formulation of the load make-up/routing problem that arises with many origins. The paper also presents a decomposition principle, and a matching algorithm that can be used to solve the problem in the important special case when vehicles can carry many items. (6 refs.) Subflite(s): C (Computing & Control Engineering): E (Mechanical & Production Engineering)

Descriptors: linear programming; transportation

Identifiers: transportation; shipment composition; consolidation center; linear programming; decomposition principle; matching algorithm

Classification Codes: C1180 (Optimisation techniques); C1290H (Systems theory applications in transportation); E0210G (Optimisation); E1540 (Systems theory applications)

9

INSPEC Update Issue: 1988-013

Copyright: 1988, IEE

26/5/15 (Item 8 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

Title: Increasing turnover at the petrol forecourt [EFTPOS]

Author(s): Holton, H.P.

Journal: Communications, vol.2, no.7, pp.30-2

Country of Publication: UK Publication Date: July 1985

ISSN: 0266-8009 ISSN Type: print CODEN: CMMNE7 Language: English

Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: According to the English and Scottish banks Electronic Funds Transfer at Point of Sale (EFTPOS) will be a major new payment service provided by banks and financial institutions for the retail market in the UK and for their customers. This service, the banks point out, will give the shopping public wider choice through an additional, faster and more convenient way of paying! One major British company-BP Oil Limited-has been operating just such a service for something like two years in Scotland, initially at thee filling stations in Aberdeen and then through a network of 23 other sites. So successful has this been that, within the next two years, the company aims to extend its one-second-purchase scheme-called Counterplus to as many petrol stations throughout the UK as are deemed suitable. In Scotland, Counterplus is operated by the Clydesdale Bank on various BP forecourts. It is the first system in the UK that has the POS linked directly and instantaneously to a bank. The point of sale terminal and customer keypad are on the cashier's counter inside the shop Ling suitable, necoded plastic cards, customers pay for their goods by having the cashier pass the card through a "wipe' and entering their PIN code (Personal Identification Number) on the keypad. The price of the sale is then automatically and instantaneously debited from the customer's account. (O refs.) pad. The price of the sale is then automatically and

Subfile(s): C (Computing & Control Engineering); D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: EFTS; petroleum industry; point of sale systems

Identifiers: EFTPOS; petrol forecourt; Electronic Funds Transfer at Point of Sale; payment service; retail market; UK; BP Oil Limited; Scotland; Aberdeen; Counterplus; petrol stations; Clydesdale Bank; point of sale terminal; customer keypad; plastic eards; PIN code

Classification Codes: C7120 (Financial computing): C7180 (Retailing and distribution computing): D2050 (Financial applications of TI); D2140 (Marketing, retailing and distribution applications of TI); E0410F (Business applications of TI); E3020 (Mining, oil drilling and natural gas industries): E3024 (Fuel processing industry)

International Patent Classification:

G06O-0020/00 (Payment schemes, architectures or protocols)

G06Q-0030/00 (Commerce, e.g. marketing, shopping, billing, auctions or e-commerce)

G06O-0040/00 (Finance, e.g. banking, investment or tax processing; Insurance, e.g. risk analysis or pensions)

INSPEC Update Issue: 1985-019

Copyright: 1985, IEE

26/5/16 (Item 9 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

03380683

Title: Push-button brokerage in the bank lobby

Author(s): Tracy, E.J.

Journal: Fortune International, vol.110, no.13, pp.57

Country of Publication: USA Publication Date: 24 Dec. 1984

ISSN: 0738-5587 ISSN Type: print CODEN: FOINEY

CODEN: FOINEY Language: English

Document Type: Journal Paper (JP)

Treatment: Application (A)

Abstract: MCorp, the name for the newly merged Mercantile Texas of Dallas and Southwest Baneshares of Houston is testing the nation's first automated brokerage machines. Nine are already operating in the lobbies of MCorp affiliated banks and another 28 are not order. The machines provide stock and bond quotes, plus research data from MPact Securities, the bank's two-year-old discount brokerage business, whose trading volume has been running at \$200 million a year. While customers now must use an attached telephone to place orders, the bank hopes to convert the keyboard later on so they can punch in buy and sell commands. The automated teller machine system, which it operates jointly with other banks, is the largest shared network in the country, with \$80 installations in ten states. MCorp is a leading promoter of debit card, the equivalent of electronic currency. When a debit card is inserted into a retailer's 'point of sale' terminal, the money is instantly transferred from a customer's bank account to the merchant's.

Subfile(s): D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: automatic teller machines; investment; point of sale systems; retail data processing

Identifiers: stock quotes; POS; MCorp; automated brokerage machines; bond quotes; research data; MPact Securities; automated teller machine system; shared network; debit card; electronic currency

Classification Codes: D2050E (TT in banking); D2050F (TT in financial markets); D2140 (Marketing, retailing and distribution applications of IT): E0410F (Business applications of IT)

International Patent Classification:

G06Q-0020/00 (Payment schemes, architectures or protocols)

G07F-0019/00 (Complete banking systems; Coded card-freed arrangements adapted for dispensing or receiving monies or the like and posting such transactions to existing accounts, e.g. automatic teller machines)

INSPEC Update Issue: 1985-005 Copyright: 1985, IEE

26/5/17 (Item 10 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

# 03365605

Title: The lure of the high life Author(s): Cockcroft, J.

Journal: Banking World, vol.2, no.11, pp.32

Country of Publication: UK Publication Date: Nov. 1984

ISSN: 0737-6413 ISSN Type: print

CODEN: BAWOEX Language: English

Document Type: Journal Paper (JP)
Treatment: General or Review (G)

Abstract: The question of who pays for electronic shopping rumbles on. Basically the banks and the retailers both like the idea, in principle, of electronic charging at check-out points. But they would prefer not to know about the details of apportioning costs. Even so, retailers in Britain are likely to spend more than Pounds200 m on electronic systems for their stores during the next five years. Electronic funds transfer (EFT) at the point of scale is the next logical step for the banks. This procedure uses the on-line system, whereby the bankers and retailers have a direct line link, open all the time, permitting transactions to be authorised and completed almost instantly. On the whole the banks like the system because it minimises fraud. Moreover, it ensures that their customers only spend within their agreed limits, and with funds which can be matched with their accounts. Thus the new technology should keep banks, customers, and shoppers, within the time-hallowed cannons of both good banking and good housekeeping. (O refs.)

Subfile(s): D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: banking; credit transactions; EFTS; point of sale systems; retail data processing

Identifiers: electronic funds transfer; EFTPOS; electronic shopping; banks; retailers; check-out points; point of scale; online system; transactions; fraud

Classification Codes: D2050E (IT in banking); D2140 (Marketing, retailing and distribution applications of IT); E0410F (Business applications of IT)

# International Patent Classification:

G06Q-0020/00 (Payment schemes, architectures or protocols)

INSPEC Update Issue: 1985-003

Copyright: 1985, IEE

26/5/18 (Item 11 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

#### 03285112

Title: Explore private microwave to cut telecommunication costs

Author(s): Bergen, M.

Journal: Bank Systems & Equipment, vol.21, no.5, pp.125-32

Country of Publication: USA

Publication Date: May 1984 ISSN: 0146-0900

ISSN Type: print CODEN: BSEQD6 Language: English

Document Type: Journal Paper (JP)

Treatment: General or Review (G)

Abstract: Point-to-point digital microwave is often the most cost-efficient and easiest option for those banks exploring alternatives to expensive leased lines for local voice and data communication, according to microwave vendors. For distances as short as across a courtyard or as far as 20 miles, a private microwave system eliminates recurring monthly charges and generally pays for itself in cost savings within two years. Whether a bank should purchase a microwave system, however, depends on distances, information load and local weather and terrain. Microwave is not always the best alternative to leased lines. Compared with regular cable systems, microwave often allows a superior flow of data because it is not susceptible to inductance noise. On the other hand, high-frequency microwave is usually not cost efficient for distances of more than 20 miles. (5 Fe/s)

Subfile(s): D (Information Technology for Business); E (Mechanical & Production Engineering)

Descriptors: banking; microwave links

Identifiers: point to point digital microwave; telecommunication costs; banks; data communication; private microwave system; inductance noise; high-frequency microwave

Classification Codes: D4000 (Office automation - communications); D2050E (IT in banking); E0410F (Business applications of IT)

INSPEC Update Issue: 1984-008

Copyright: 1984, IEE

26/5/19 (Item 12 from file: 2)

DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

#### 01929159

Title: High energy collisions between heavy nuclei

Author(s): Franco V.1

Affiliation(s):

1 CENS, Gif-sur-Yvette, France

Journal: Physics Letters B, vol.61B, no.5, pp.444-8

Country of Publication: Netherlands

Publication Date: 26 April 1976

ISSN: 0370-2693 ISSN Type: print CODEN: PYLBAJ Language: English

Document Type: Journal Paper (JP)

Treatment: Theoretical or Mathematical (T)

Abstract: Neglecting Coulomb effects, a very simple analytical result is derived for nucleus-nucleus elastic scattering in an optical limit of the Glauber approximation which has the properties that it does not diverge at large momentum transfers when the centre-of-mass correlation function is retained and is more accurate and easier to apply than the commonly used expressions which involve numerical integrations. A corresponding analytical expressions is also derived for the elastic scattering amplitude which includes the Coulomb effects arising from point charge incident and target nuclei. (12 refs.) Subflictor. A (Physics)

Descriptors: nuclear optical model; nuclear reactions and scattering due to nuclei of Z>2

Identifiers: analytical expressions; elastic scattering amplitude; Coulomb effects; high energy collisions between heavy nuclei; nucleus nucleus elastic scattering; opical limit of Glauber approximation; nondivergence at large momentum transfers; centre of mass correlation function; point charge nuclei

Classification Codes: A2410H (Optical and diffraction models in nuclei); A2570 (Heavy ion induced reactions and

scattering)
INSPEC Update Issue: 1976-006

Copyright: 1976, IEE

26/5/20 (Item 13 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

00470396

Title: The parallel-line dipole aerial Author(s): Uchida, H.; Sato, R.; Nagai, K.

Journal: Journal of the Institute of Electrical Communication Engineers of Japan , vol.39 , no.6 , pp.557-561

Country of Publication: Japan Publication Date: June 1956 Language: Japanese

Document Type: Journal Paper (JP)

Abstract: The aerial consists of two identical unsymmetrical parallel lines with their ends connected together to form a narrow loop. Each line has one half thicker than the other and the arrangement is such that the thicker half of each lies opposite to the thinner half of the other. The aerial is fed by balanced transmission lines connected to the centre junction points, where there are no disconnections. The radiation characteristics are the same as for a centre-driven simple dipple of circular cross-section, the radius of which equals the equivalent radius of the unsymmetrical parallel lines. An advantage of this type of aerial is its wideband characteristic, it being easy to make the bandwidth > that of a folded dipole. Like the latter, its input impedance can be made high, values of 200 to 1000 ohrns being obtainable with suitable design. Theory useful for practical design is given, some experimental results in the u.h.f. and v.h.f. bands are presented and an application of the principles to the design of a wideband circular-loop aerial is described.

Subfile(s): B (Electrical & Electronic Engineering)

Descriptors: antennas Identifiers: aerials

Classification Codes: B5270 (Antennas) Copyright: Copyright 2004, IEE

26/5/21 (Item 14 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

00439614

Title: Rebuilding San Francisco's transit system

Author(s): ReQua, F.L.

Journal: Transactions of the American Institute of Electrical Engineers, Part II (Applications and Industry), vol.73,

pp.171-176

Country of Publication: USA Publication Date: 1954

Language: English Document Type: Journal Paper (JP)

Abstract: Å brief history is given of the transportation systems, and statistical data show the expenditure on rehabilitation between 1944 and 1954, route-miles, vehicles in service and passenger-carrying facilities at peak loads. Particulars are given of the latest vehicles (P.C.C. cars, trolleybuses, motor-buses) together with storage yard and garage facilities. The reconstruction of the tramway overhead work and the new construction for trolleybus routes is described. Particulars are given of a new opener supply system, feeders and substations. Brief details are given of a new centralized control center with

radiocommunication with 31 mobile transmitters and **receivers**, headway recorders (remote-operated from 40 **points** on the **system**), telephone **communication** to depots, etc.

Note: Applic. and Industr., No. 14 (Sept., 1954)

Subfile(s): B (Electrical & Electronic Engineering): C (Computing & Control Engineering)

Descriptors: traction; transport control Identifiers: traction; transport organization

Classification Codes: C3360 (Transportation system control): B8520 (Transportation)

Copyright: Copyright 2004, IEE

26/5/22 (Item 15 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

## 00342271

Title: Input impedances of centre-fed slot aerials near half-wave resonance

Author(s): Putman, J.L.

Journal: Journal of the Institution of Electrical Engineers, vol.95, pp.290-294

Country of Publication: UK Publication Date: July 1948

Language: English Document Type: Journal Paper (JP)

Abstract: Slot radiators of various widths were fed with balanced parallel-rod transmission lines connected near the centre points of opposite edges of the slots. Series components of impedance at the feed points were measured for each slot at a number of frequencies, including that at which the length of the slot was 1/2 lambda. In the first set of experiments the slot was free to radiate on both sides of the metal sheet in which it was cut. Further measurements are described in which the dimensions of the slot were kept constant whilst rectangular cavities of various dimensions were placed symmetrically behind the slot so as to prevent radiation from one face of the metal sheet.

Subfile(s): B (Electrical & Electronic Engineering)
Descriptors: electric impedance; antenna theory

Identifiers: aerial theory -- impedance

Classification Codes: B5270 (Antennas); B5200 (Electromagnetic waves, antennas and propagation)

Copyright: Copyright 2004, IEE

26/5/23 (Item 16 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

## 00205496

Title: Magnetic field strength in the plane of a circle carrying a current

Author(s): Fleischmann, L.

Journal: Archiv fur Elektrotechnik, vol.21, pp.30-34

Country of Publication: Germany Publication Date: 22 Oct. 1928

Language: English

Document Type: Journal Paper (JP)

Abstract: Simple formulae for the magnetic field strength at the centre of a current-carrying circle of wire and for points on the axis drawn through the centre normally to the plane of the circle are well known and can be readily obtained by elementary principles. The field strength at other points in the plane of the circle, however, is usually calculated from the vector potential of the circuit, involving somewhat advanced electromagnetic theory. The paper shows how the calculation may be made from simple geometrical principles, leading to the usual elliptic function expression for the magnetic force. The formula is compared with the results of an experimental exploration of the field of a circular turn, using a ballistic method. Finally, the formula is integrated to give an expression for the mutual inductance between two concentric circles lying in the same plane, the result being expressed in terms of elliptic functions.

Subfile(s): A (Physics)

Descriptors: electromagnetic theory; magnetism

Identifiers: electromagnetism and electromagnetic theory; magnetism

Classification Codes: A7500 (Magnetic properties and materials); A4100 (Electricity and magnetism; fields and charged

particles)

Copyright: Copyright 2004, IEE

26/5/24 (Item 17 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

## 00183519

Title: Automatic transmission of power readings

Author(s): Smith, B.H.; Pierce, R.T.

Journal: Journal of the American Institute of Electrical Engineers, vol.43, pp.101-105

Country of Publication: USA Publication Date: Feb. 1924 Language: English

Document Type: Journal Paper (JP)

Abstract: The authors describe various methods for transmitting power readings over long distances to central points, so as to provide information concerning power and load conditions for load dispatching, billing, or other purposes. The various automatic methods described depend upon frequency, inverse current, potentiometer, position, voltage, current, or impulse. In the frequency method, alternating current at 1000 to 2000 volts is sent through a pilot circuit at a frequency from 20 to 60 cycles per sec., depending upon the load measured. The wattmeters at substations control the speed of small a.c. generators to produce the appropriate frequency and the current received at the central station drives a synchronous motor which is connected to a speedometer, the latter being balanced against a Kelvin balance wattmeter. The sending and receiving apparatus is not suitable for general use; the power to be transmitted over the line is 40 watts. In the inverse-current method all the stations are connected in series, a constant voltage is maintained in the dispatcher's office, and the wattmeters in each substation regulate rheostats so that the metering current is inversely proportional to the load. The potentiometer method is very accurate, but involves complicated connections; a slider on the pen carriage of the transmitting wattmeter applies a fraction of the applied voltage to the metering circuit and, at the receiving station, this voltage is applied to a contact-making galvanometer which operates a slider across a resistance. The induction type position transmitter has probably the widest application in that method which depends upon reproducing at the receiving station the position of a transmitting device which is set in a position corresponding to the power measured. In the voltage method a slider on the pen carriage of a graphic wattracter controls the voltage applied to the pilot wires, which are connected to a voltmeter calibrated in kilowatts: for totalising, the several voltmeters are connected in series. The current method is similar to the potentiometer method, but much simpler. The contacts on a Kelvin balance wattmeter, with the control spring omitted, control a motor-operated rheostat which varies the current in a d'Arsonval meter element until its torque is equal to that of the Kelvin balance which it opposes. This current, which is proportional to the power measured, is received by a d.c. ammeter. By this method readings can be transmitted over telephone lines for 25 miles without interfering with conversation. The impulse, method depends on the transmission of a series of d.c. impulses, the frequency of which is proportional to the speed of the sending meter. At the

receiving office the impulses actuate a polarised escapement mechanism and a ball mechanism is used to compare the speed of the escapement mechanism with that of a synchronous motor. With proper precautions this method can be used on telephone lines, also, duplex and quadruplex working is practicable.

Subfile(s): B (Electrical & Electronic Engineering)

Descriptors: apparatus and instruments; electrical engineering

Identifiers: apparatus and instruments (electrical, descriptive); miscellaneous (general electrical engineering)

Classification Codes: B8000 (Power systems and applications)

Copyright: Copyright 2004, IEE

26/5/25 (Item 18 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

00140697

Title: The brown telephone relay [with discussion]

Author(s): Brown, S.G.

Journal: Journal of the Institution of Electrical Engineers, vol.45, pp.590-619

Country of Publication: UK Publication Date: Sept. 1910 Language: English

Document Type: Journal Paper (JP)

Abstract: The author's telephone relay is developed along quite new lines. It takes as its basis the researches of J. J.

Thomson, Earhart, Kinsley, and others, with regard to the flow of electrons across a microscopic air-gap between two conducting at different potentials. Earhart found that when the distance between metal electrodes falls to less than about 3x10 SUP 4 cm., the spark potential falls off rapidly with the distance, and seems to become proportional to the distance. If the metallic circuit of a dry cell be interrupted by a minute opening or space of the order of 5x10 SUP -7 cm., the metal at the point of interruption being Pt, the current will continue to flow round the circuit and across the opening, and any slight alteration in the length of the space ("conduction space") will vary its resistance and greatly effect the value of the current that flows. This conduction space is here employed for the current-varying device of a telephone relay. The Fig. gives a diagrammatic view of the connections. The movement of the "invar" steel reed P is caused by the telephone currents which are to be magnified, circulating in the polarised electromagnet H. The contact is made between metal pieces of hard Os-Ir alloy. The top contact, M, is pointed, the lower one, O, is flat and is soldered to the reed; both are polished and work under a small drop of thin oil, C is a dry cell (this is the normal voltage, which is as high as it is desirable to employ). K the lowresistance regulating winding, T the receiving telephone or telephone head-piece of approximately 40 ohms resistance, D is an ammeter; when the microphone contact is opened so as to cut down the local current to half its max, value, the relay is usually at its best adjustment. The telephone currents to be magnified enter by the magnify the very feeblest telephone currents. Speech or signals that are too faint to be heard in the ordinary bell receiver may be heard clearly through the relay. This property of magnifying feeble telephone currents has made it particularly useful in wireless telegraphy. In a wireless receiving station, messages, the very existence of which was not even suspected owing to their extreme feebleness, when listened for under former conditions, were easily read with the relay in circuit. Taking advantage of the extreme sensitiveness of a microphone having contacts of Os-Ir, the author has devised an electric stethoscope. This has been experimentally used, and proved to be extraordinarily sensitive. The author has further devised an Qs-Ir granular transmitter, which has been tried successfully over 60 miles of 20-lb. standard artificial cable. The upper harmonics of the voice are more faithfully transmitted by the metal granules than by carbon, A telephone relay, if placed simply in the middle of a long telephone line, can magnify the currents only in one direction-such a device is called a single repeater. The relay, for practical use, has therefore to be associated with balancing coils and placed in the line so that it may work in either or both directions-such a combination is termed a two-way repeater. Theoretically it would seem that the two-way repeater can be only one-quarter the efficiency of the single repeater. There is still much to be done before the two-way repeater is practicable. In the discussion, J. E. Taylor testified to the fact that the relay is capable of picking up wireless telegraph signals which are entirely inaudible on the ordinary telephone receiver. Signals which are just audible may be, perhaps, twenty times magnified. J. E. Kingsbury referred to earlier forms of telephonic "repeater," and to Berliner's metallic contact transmitter as akin to the author's. There are very important and difficult problems in the telephone relay. One which talks only one way is not a practical instrument.

It must talk both Ways, B. S. Cohen had experimented with the author's relay, and, allowing for some disadvantages, had found that the relay gave a net improvement of 8 standard cable miles, representing approximately about 230 miles of trunk

line, but this improvement would be considerably decreased if double repeaters working both ways were used. The Shreeve repeater is in use by the American Telegraph and Telephone Co. in the United States on a number of long lines. The repeater is generally used in series in the middle of a line whose total length is not less than about 12 standard males. On a less length than this trouble is experienced by reason of the instrument singing. To get the best results, the repeater must be at the exact electrical centre of the line so that the lines on each side of the repeater balance. Under these conditions the articulation is very good. The improvement under these conditions, using double repeaters working both ways, is about 6 standard miles. More than one repeater can be inserted in the line. For example, on one long lines running out of Boston, 1500 miles long, three repeaters are joined in series, giving a net improvement of 18 standard miles. A number of tests have been carried out with the author's metallic granule transmitter, and the results obtained with this are decidedly encouraging. Under favourable conditions the transmitter gave an improvement over the commercial common battery transmitter with carbon granules, of 10 standard miles, and the articulation was as good, A. C. Booth stated that the relay as a repeater in the middle of an artificial telephone line of 68 miles worked well. The adjustment required some preliminary regulation. In radio-telegraphy the relay is not absolutely dead silent when signals are not being received, owing to its microphonic qualities. It is obvious that when used on long trunk circuits any defects or disturbances will be magnified. The switching also for to-and-fro conversation on a trunk line will be a disadvantage. D. H. Kennedy had found it possible to hear speech through 108 miles of standard cable with the relay at the centre. Adjustment was easy. The Author, in reply, dwelt upon the art which should be employed in preparing and adjusting the contact. Among other things, it is best to have the **point** of negative polarity, and to have it above, the lower contact being flat. Two relays had been tried in series, and the increased magnification was enormous, articulation being fairly good.

Subfile(s): B (Electrical & Electronic Engineering)

Descriptors: apparatus and instruments; telephony

Identifiers: apparatus and instruments (electrical, descriptive); telephony

Classification Codes: B6210D (Telephony); B6210F (Telegraphy)

Copyright: Copyright 2004, IEE

26/5/26 (Item 19 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

00118754

Title: Cost of electrical energy Author(s): Addenbrooke, G.L. Journal: Engineering, vol.77, pp.773-776 Country of Publication: UK

Publication Date: 3 June 1904

Language: English

Document Type: Journal Paper (JP)

Abstract: A paper in favour of the establishment of central power stations for provision of current for industrial and manufacturing purpose, the arguments being based on the figures given in a recent paper by E.J. Fox, of Cleveland. As regards captial cost, the author comes to the conclusion that in nearly every case where electrical driving is desired, "it will be cheaper to have the power in a central station if of sufficient size, and transmit it anywhere within a radius of 8 miles, than to establish a local plant." On this subject of capital outlay, he remarks that three-fourths of the expenditure is in reality upon steam-plant, and would be necessary even if electrical driving were not contemplated-a fact which is not generally recognised by users of power. Administration charges are next dealt with in detail, and the author gives the following absowing the division of the gross revenue obtained from customers, and notes that as in railways, the working costs are about one-half the gross receipts, and that interest on capital, upkeep, and depreciation changes, account for the remainder.

Administration 10 percent Labour 10 percent

Coal, oil, stores25 percent

Repairs, rates, taxes, insurance20 percent

Interest on capital35 percent

As regards the comparative working costs of large and small plants, the author quotes figures to show that a 20 percent saving in steak could be effected in a large turbine plant, with 3,000-kW units, and that other savings in steam consumption in the auxiliaries (pumps, &c.), might be expected in the larger station. Transmission losses within an 8-mile radius ought not

to exceed 10 percent, and certainly would not wipe out the benefits of this saving in coal and steam. The author next deals with costs of supply from a 10,000-kW plant, and gives the above diagram to show the influence of load-factor in the results. This curve would be very nearly represented by a charge of 4d. for the first hour's use, and 0.2d. for each hour's use afterwards per kW, or Pounds5 per annum as a dead charge and 0.2d. for each unit used. For load-factors of 25 to 36 percent -those usual in works - the curve gives prices of 0.85d. to 0.75d. per unit, while for a 50 percent load-factor, the price comes out at 1/2 d., and for 18 to 20 hours - the sort of load-factor one gets with continuous working plants in practice - about 0.4d. per unit, or even less. These prices include a good dividend to the shareholders and a fair sum for promotion and finance, but perhaps hardly sufficient to cover the costs some companies have incurred. The prices are below what power companies are offering power for now, and naturally so. They are intended to show what power companies ought to be able to do as soon as they get 10,000 to 15,00-kW loads on the stations. The author finally discusses the prospects of reducing the costs for field, and points out that considerable savings may be expected even with the present type of plant, by greater attention to the boiler installations, while the introduction of large gas engines will lead to a further reduction of form 10 to 20 percent in the fuel costs per unit generated.

Subfile(s): B (Electrical & Electronic Engineering)
Descriptors: costing; power transmission and distribution
Identifiers: costs; power transmission and distribution
Classification Codes: B8100 (Power networks and systems)

Copyright: Copyright 2004, IEE

26/5/27 (Item 20 from file: 2) DIALOG(R)File 2: INSPEC (c) 2010 The IET. All rights reserved.

# 00109878

Title: Reports on the visit of the I.E.E. to Germany in 1901 [with discussion] Journal: Journal of the Institution of Electrical Engineers, vol.31, pp.534-573 Country of Publication: UK

Publication Date: March 1902

Language: English

Document Type: Journal Paper (JP)

Abstract: The first report is that of the Committee on Traction, Light, and Power Distribution. In German stations, engines are commonly of the horizontal slow-speed type, running at from 80 to 100 r.p.m. In some cases vertical engines are used; but they are considered to cost more in attendance, and to be higher in prime cost. The enclosed high-speed engine is not used. Water-tube boilers are almost universal, and superheating up to 50(deg) C. is very common, this being effected generally by separately fired superheaters. The bulk of the new work is on the three-phase system. In Berlin, continuous current is distributed; but large stations, containing 90,000 h.p. in three-phase plant, have been built in the suburbs, whence the power is transmitted to central points for distribution and transformation. Very little single-phase or bi-phase work is being done. Inductor alternators are practically extinct. Mention is also made of direct-coupled slow-speed pumping plants. [See also Abstract No. 1902A00596.] The periodicity used is almost always 50; rotaries up to 800 kw, are run at this periodicity in substations in Berlin. The Allgemeine Elektricitats Gesellschaft used direct-current motors in their old works; but in their newer factories they use three-phase motors throughout, except for driving the cranes in one building, this being done by direct current supplied from motor-generators, which also supply current for inverted arc lighting. At Lahmeyer's works polyphase motors are used for driving groups of machines, while single machines are driven by continuous-current motors. Accumulators are used on a large scale, and amount sometimes to 20 or 25 per cent. of the whole of the plant. An uninsulated middle wire is used on a three-wire system. On tramways, the sliding bow appears to be extending faster than the trolley; it gives a simpler overhead construction at curves and junctions, and more latitude in the position of the overhead wire. The sliding of the bow gives quieter running. The next report is from the Committee on Manufacturing. Small induction motors have short-circuited rotors, and wire resistances in the stator; large motors are started by liquid resistances, usually in the rotor circuit. These resistances consist of lead plates dipping into iron vessels containing a solution of soda. On switchboards high-tension switches are usually fixed behind the board, and worked by insulated levers which are brought through to the front. Very long breaks are allowed, viz., from 10 to 15 in. for 3,000 volts, and 20 to 30 in. for 10,000 volts. Various other details in connection with switchboards and machinery generally are mentioned. Figures are also given relating to the wages paid in Germany. The last report refers to Telephones, and is mainly concerned with a statement of the rates charged in Berlin and the suburbs. The charge for communication in Berlin and the immediate suburbs is Pounds9 a year. In

the discussion, A. Siemens stated that accumulator traction had proved a failure in Hanover, and that it was now proposed to use the trolley system throughout. On the high-speed experimental railway at Zossen, the speeds had been increased very gradually, and one of 95 miles an hour had now been reached. The experiments about air resistance, which had been made beforehand, had been amply confirmed in actual running. G. Hooghwinkel said that an uninsulated middle wire was almost universally used on distributing systems in Germany; the middle wire has usually a sectional area of 25 per cent, of that of the outers. The allowable loss of volts in the middle wire should never exceed 3 volts in any case; and this pressure can cause no danger to gas-pipes. He also contended that with this system the existence of faults was more easily discovered, and the insulation resistance of the system could be kept up to a higher standard. M. O'Gorman drew attention to the elaborate precautions which are taken in German cable works with a view to securing cleanliness. The most important particular in which the Germans are ahead of us in the manufacture of cables is the adoption of the vacuum drying and vacuum impregnating tanks. By means of large cast-iron chambers, which are steam-heated, all free moisture is removed from cellulose without exceeding a temperature of 220(deg) F., and without producing any of the partial decomposition of the cellulose, accompanied by the evolution of water, which is brought about by heating for a lengthened period at 240(deg) F. High-tension cables are completely dried on the vacuum system in about 10 hours. Several of the cable works stock only one size of copper wire, and draw it down themselves to suit their requirements. This tends to reduce the amount of capital locked up in copper wire.

Subfile(s): B (Electrical & Electronic Engineering)

Descriptors: electrical engineering

Identifiers: miscellaneous (general electrical engineering)
Classification Codes: B8000 (Power systems and applications)

Copyright: Copyright 2004, IEE

# V. Additional Resources Searched

Financial Times FullText (via ProQuest): No relevant results.

Internet & Personal Computing Abstracts (via EBSCOhost): No relevant results.